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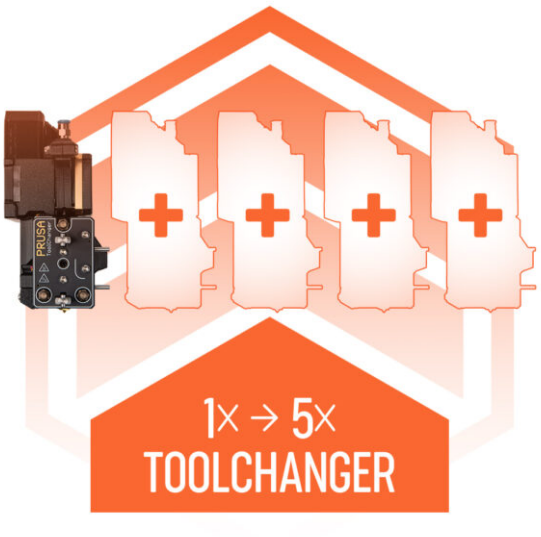
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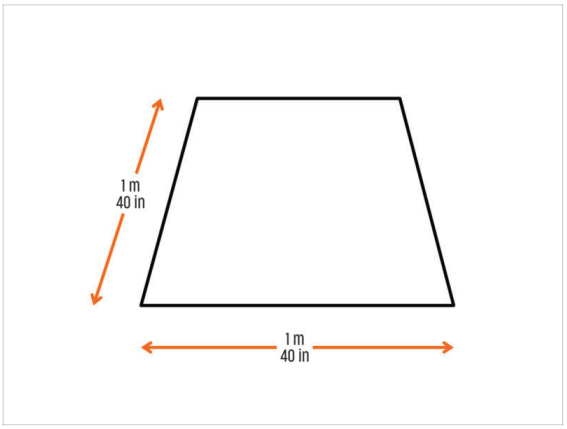
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1. Introduction



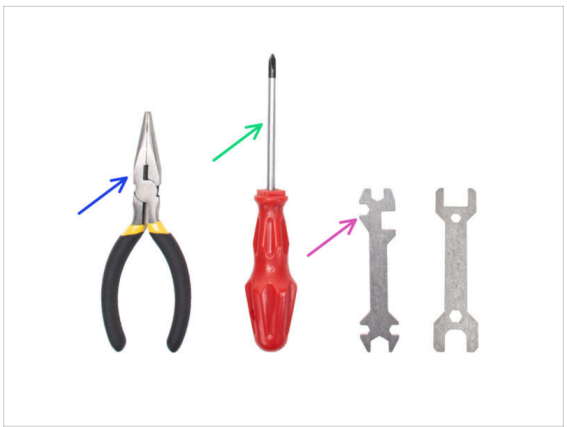
STEP 1 Preparing the upgrade kit





- Welcome to the tutorial on how to upgrade your Original Prusa XL+ Single-Tool to **Original Prusa XL+ Five-Head**.
- Please prepare the upgrade kit received from Prusa Research.
- For the assembly, prepare a clean workbench with a space of at least 1 m x 1 m (40 in x 40 in).

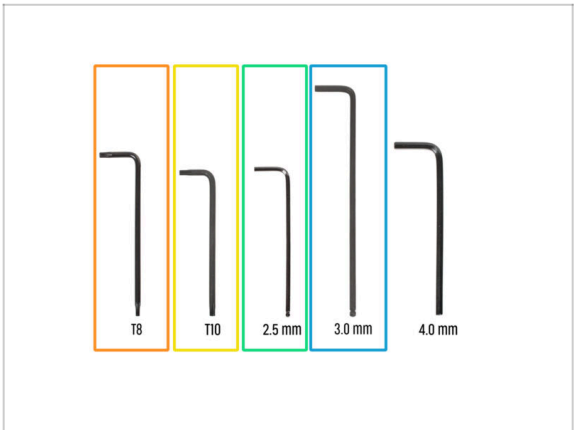
STEP 2 Getting the necessary tools





- **The package includes:**
- Needle-nose pliers (1x)
- Philips (PH2) screwdriver (1x)
- Universal wrench (1x)
- Nextruder box as a heatbed cover.
- Continue to the next step.

STEP 3 Getting the necessary tools



- **The package includes:**
- T8 Torx key
- T10 Torx key (T10 Torx screwdriver)
- 2.5 mm Allen key
- 3.0 mm Allen key

STEP 4 Labels guide



- All the boxes and bags including parts for the build are labeled.
- The amount of parts is written on the label. This number is included in the total number of each type of part.

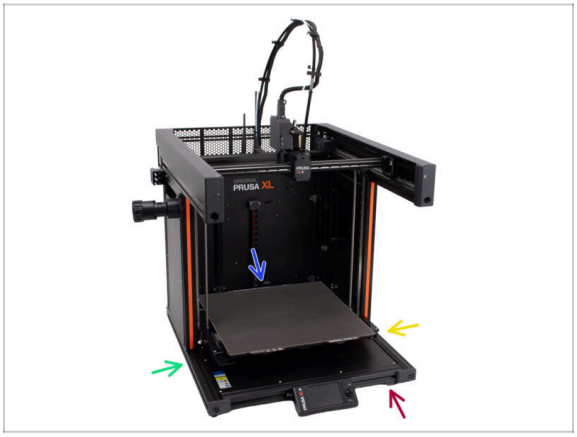
STEP 5 Cheatsheet





- For accurate assembly, it is recommended to use a Cheatsheet that contains 1:1 scale drawings for accurate comparison of fasteners and some other parts.
- You can download it from our site prusa.io/cheatsheet-xl. Print it at 100 %, don't rescale it, otherwise, it won't work.
- The frame covers are 1:1 scale, so you can compare the size by placing the frame cover on the paper to make sure you are using the correct type.

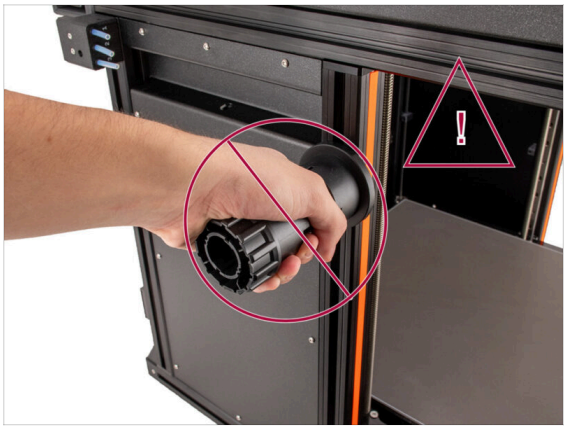
STEP 6 Front, left, right and rear side



IMPORTANT: The XL printer is large and it is almost impossible to have the entire body in every single picture. Throughout the manual, there will used terms to **describe the side you will be working on**:

- **Front side** - a place where is **xLCD screen**.
- **Left side** - can be recognized thanks to the **safety sticker** near its edge.
- **Right side** - opposite to the left side, there is **no safety sticker** on this side.
- **Rear side** - the remaining side, where is **PSU.**

STEP 7 Manipulating with the printer

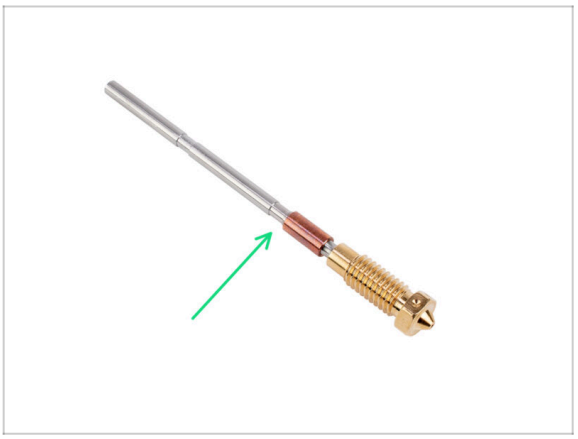




⚠ **Never manipulate the printer by using the upper metal flanges. You can damage the LED lights hidden inside.**

- During the assembly manipulate the base using the extrusions.

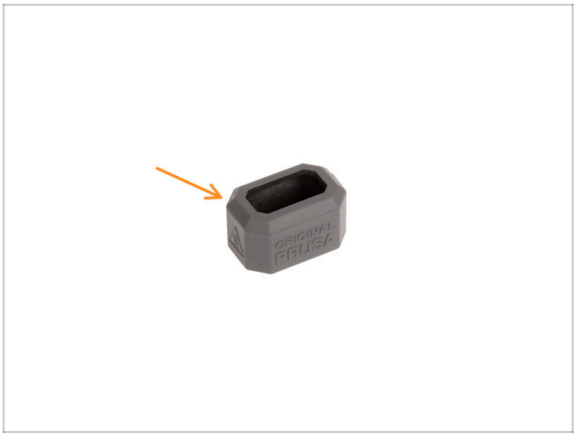
STEP 8 Spare nozzles



ⓘ The Nextruder upgrades come with pre-installed 0.4mm nozzles.

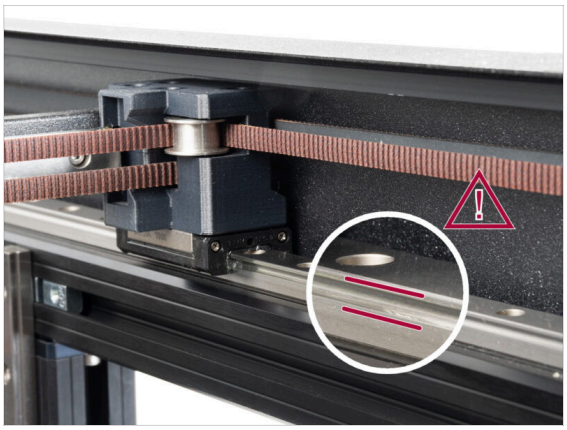
- You'll find spare nozzles in the upgrades. You can replace the nozzle on your existing Nextruder with a new 0.4 mm diameter nozzle
- For replacing the Prusa nozzle, go to **How to replace the Prusa Nozzle (XL multi-tool)**

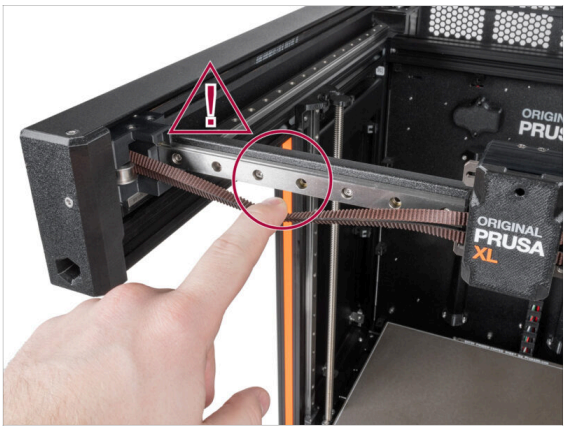
STEP 9 Silicone sock



- A silicone sock is supplied with each Nextruder package.
- The main function of a silicone sock is to keep the temperature in the heater block stable, which improves the printer's performance.
  - ⓘ Also, it keeps your hotend clean from filament dirt and protects it in case the print detaches from the print surface.
- You will be asked to install the sock later in this guide.
  - ⓘ How to install the sock - check the article.

STEP 10 CAUTION: Lubricant Handling

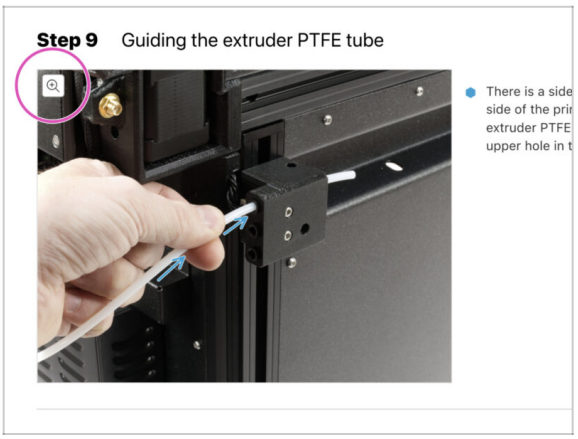




⚠ **CAUTION: Avoid direct skin contact with the lubricant used for the linear rails** in this printer. If a contact occurs, **wash your hands immediately. Especially before eating, drinking, or touching your face.**

- Lubricant accumulates in the printer's bearings, mainly in the linear rail channels.

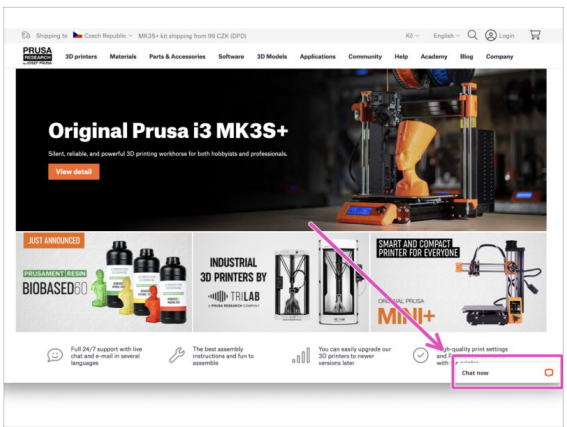
STEP 11 View high resolution images

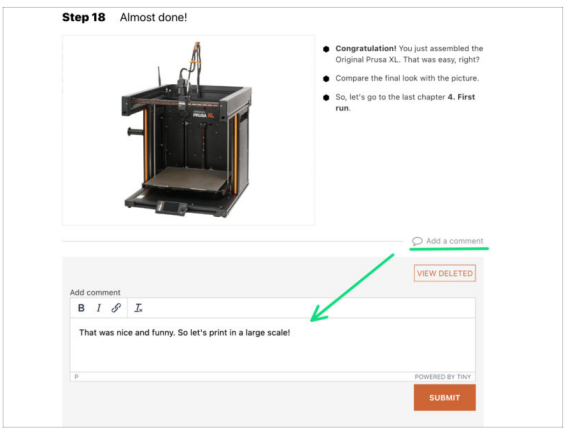


When you browse the guide on help.prusa3d.com, you can view the original images in high resolution for clarity.

- Just hover your cursor over the image and click the Magnifier button ("View original") in the top left corner.

STEP 12 We are here for you!





- Lost in the instructions? Missing screw or cracked printed part? **Let us know!**
- You can contact us using following channels:
  - Using comments under each step.
  - Using our 24/7 live chat at shop.prusa3d.com
  - Writing an email to info@prusa3d.com

STEP 13 How to successfully finish the assembly



⚠ To successfully finish the upgrade please follow all these:

- **Always read all the instructions at the current step first**, it will help you to understand what you need to do. Don't cut or trim unless you are told to!!!
- **Don't follow pictures only!** It is not enough, the written instructions are as brief as they could be. **Read them!**
- Read the comments from the other users, they are a great source of ideas. We read them too and based on your feedback improve the manual and the entire assembly.
- **Use a reasonable force**, the printed parts are tough, but not unbreakable. If it doesn't fit, check your approach twice.
- **Most important: Enjoy the build, have fun**. Cooperate with your kids, friends or partners.

STEP 14 Reward yourself



- Look in the box and find bag of Haribo Bears.
- After years of thorough scientific research, we came to a solution => At the end of each chapter, you will be told a specific amount of bears to consume.
- Eating incorrect amount than prescribed in the manual might lead to sudden boost of energy. Please consult a professional in the closest candy store.

⚠ **Hide the Haribo for now!** From our experience an unattended bag with sweets will suddenly disappear. Confirmed by multiple cases all around the World.

STEP 15 Prepare your desk

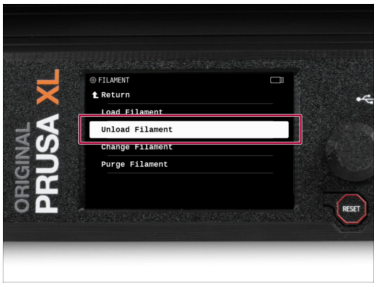


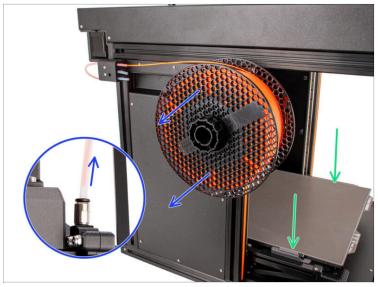
- Tidy up your desk! Tidying up decreases the probability of losing small parts.
- **Clear your workspace.** Make sure you have enough room. A nice clear flat workbench will get you the results you are aiming for.
- **Let there be light!** Make sure you are in a well-lit environment. Another lamp or even an extra flashlight will probably come in handy.
- Prepare something to contain the plastic bags and the removed packing materials so you can recycle them afterwards. Make sure there are no important parts being discarded.
- OK, we are ready. Let's start! Let's go the next chapter: **2. Printer preparing**

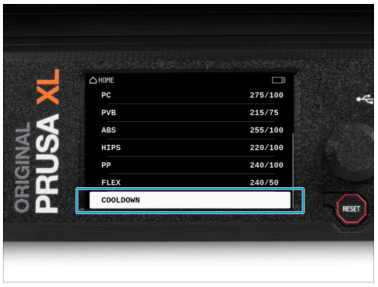
2. Printer preparation



STEP 1 Preparing the printer







- If you have loaded the filament, unload it from the hotend. On the screen, navigate to *Filament -> Unload Filament*.
- Remove the filament from the hotend. It is is necessary to completely remove it from the printer.

⚠ **WARNING: The hotend and heatbed are very HOT. Do not touch these parts!!!**

- Move the Z-axis down. On the screen, navigate to *Control -> Move axis -> Move Z.*
- Cool down the printer. On the screen, navigate to *Preheat -> Cooldown.*

⚠ **Wait until the hot parts are cooled down** to ambient temperature. It takes approximately 10 minutes.

STEP 2 Protecting the heatbed



- **Before you proceed, it is recommended to protect the heatbed.**
- **Make sure the heatbed is cooled down** to ambient temperature. Place the empty cardboard box approximately to the front center part of the heatbed.

STEP 3 Printer unpluging



- From the rear side of the printer, turn the power switch OFF (symbol "O").
- Unplug the PSU cable.

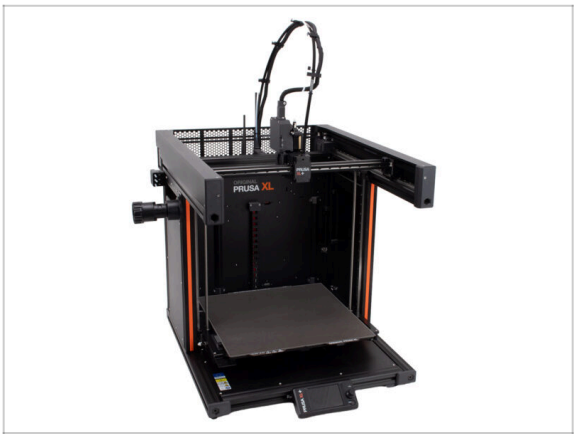
STEP 4 Can I open the Haribo?



⚠ **Keep the Haribo bag closed for now!**

- This dose of energy is primarily for printer assembly. **Wait until you are prompted to open it.**

STEP 5 Let's get started

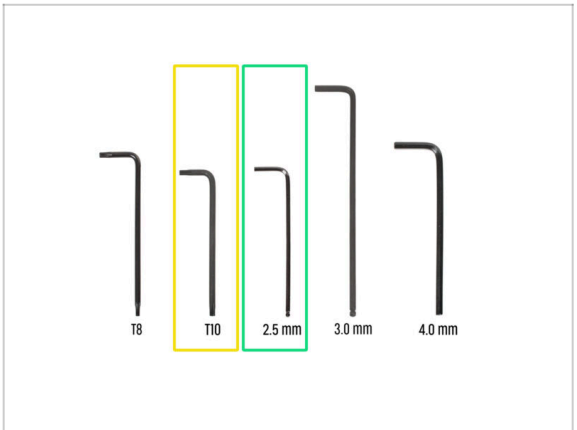


- Everything checked? So, let's start with disassembling the printer. Let's go to the next chapter: **3. Nextruder detaching**

3. Detaching the Nextruder

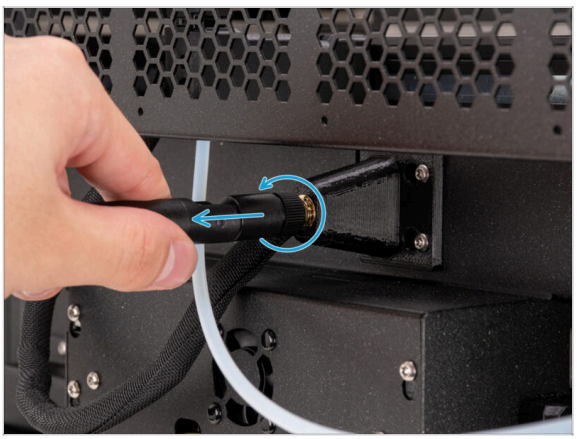


STEP 1 Tools necessary for this chapter



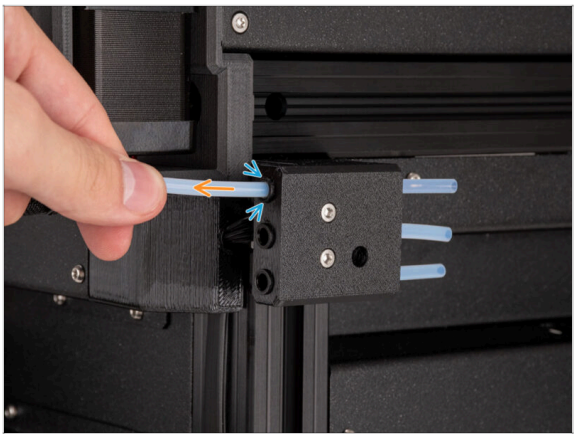
- **For this chapter, please prepare:**
- T10 Torx key (T10 Torx screwdriver)
- 2.5mm Allen key

STEP 2 Wi-Fi antenna detaching



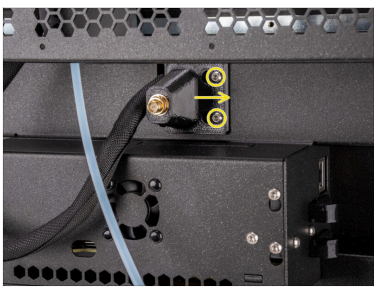
- This step is only for the printer, which has a Wi-Fi antenna on the back of the printer.
- Turn the printer, so the back side of the printer is facing you.
- Unscrew the Wi-Fi antenna from the antenna connector and place it nearby.

STEP 3 PTFE unpluging

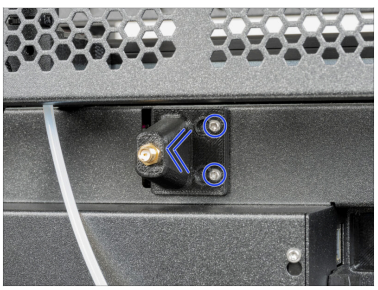


- Turn the printer so the left side of the printer is facing you.
- Gently push the black collet to release the PTFE tube.
- Pull out the PTFE tube.

STEP 4 Disconnecting the Nextruder cable

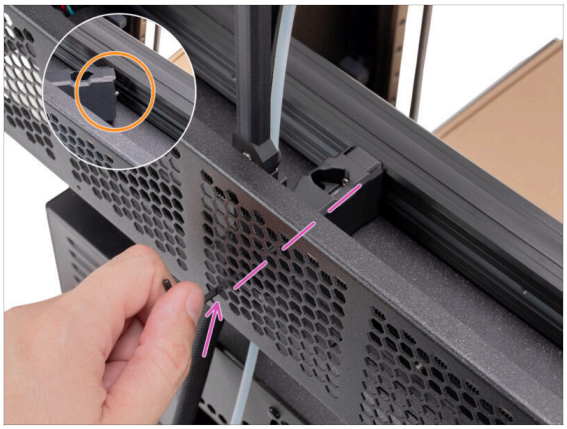


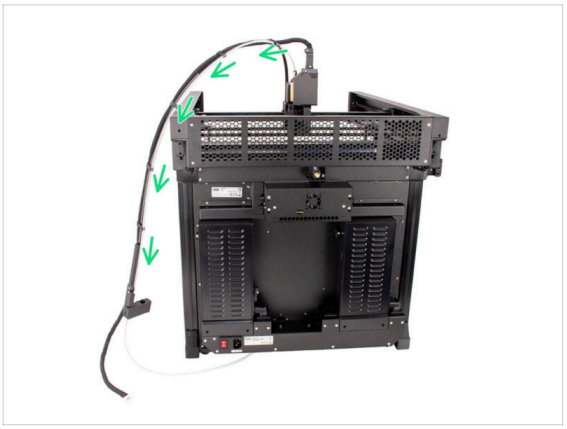




- Turn the printer, so the back side of the printer is facing you.
- ⚠ There is an antenna cable behind the antenna-holder, do not pull the connector!
- Loosen two screws on the cover slightly. No need to remove them completely. Push the cover to the right and gently remove it from the screws.
- Push the safety latch and disconnect the Nextruder cable from the connector "DWARF1".
- Attach the antenna-holder to the screws and push the cover to the left. Tighten the screws.

STEP 5 Detaching the dock

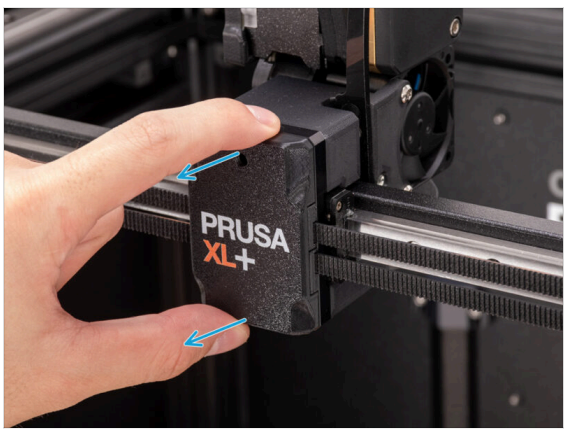


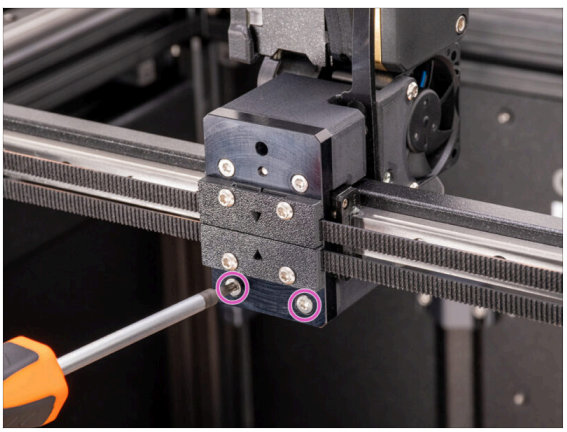


ⓘ If you have an older version of the CoreXY back cover, untighten the screw in the dock same as the instructions say. The process is the same.

- Using a 2.5mm Allen key, untighten the screw inside the (middle hole) dock.
- Carefully remove the dock from the printer.
- Keep the Nextruder cable bundle next to the printer.

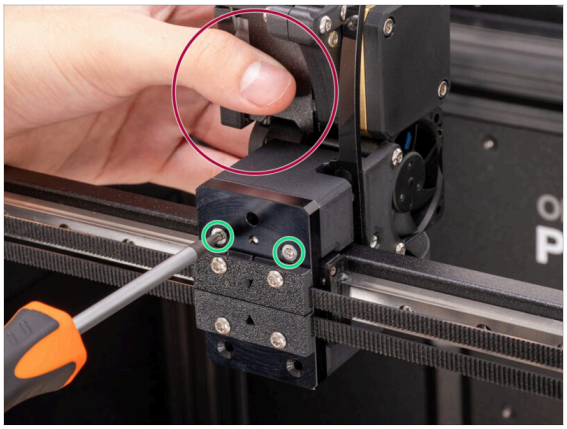
STEP 6 Detaching the Nextruder

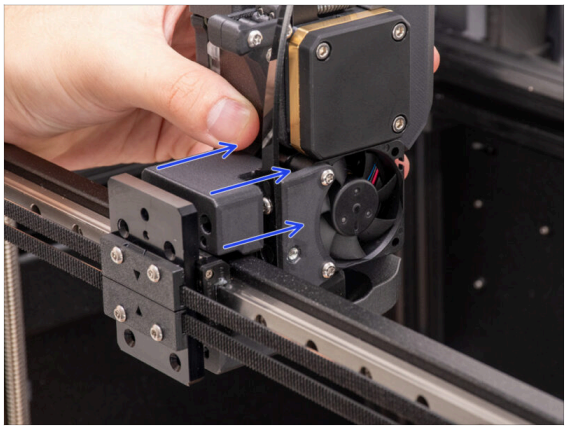




- Turn the printer, so the front side is facing you.
- Snap off the x-carriage-cover back from the X-carriage. **Do not throw it away, we'll use it later!**
- Using a T10 Torx key, remove two M3x12bT screws.

STEP 7 Detaching the Nextruder





- Hold the Nextruder during disassembly.
- Remove two M3x12bT screws using a T10 Torx key.
- Detach the Nextruder and place it nearby, we will rebuilt it in the next steps.

STEP 8 Still no sweets?



- **Please don't open the bag yet.**
- But you are getting close to your first taste ;).

STEP 9 Good job!

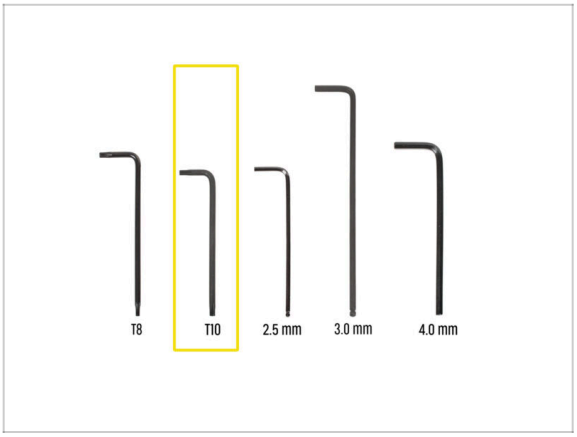


- Well done! Let's go to the next chapter: **4. ToolChanger assembly**

4. ToolChanger assembly

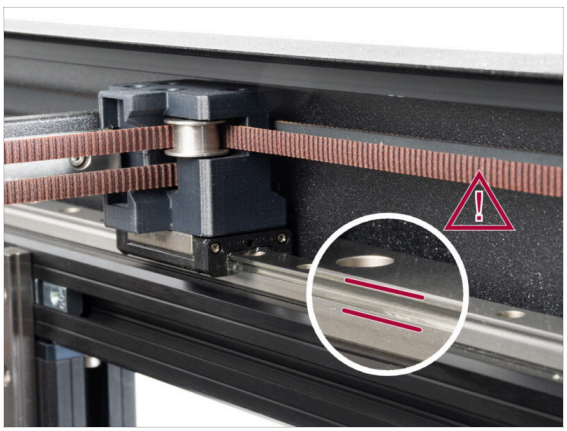


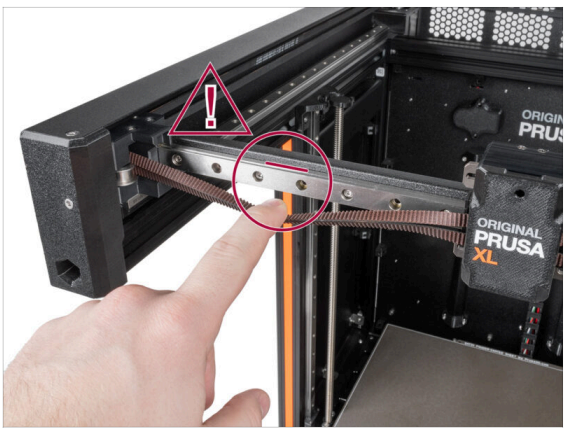
STEP 1 Tools necessary for this chapter



- **For this chapter, please prepare:**
- T10 Torx key (T10 Torx screwdriver)

STEP 2 CAUTION: Lubricant Handling





⚠ **CAUTION: Avoid direct skin contact with the lubricant used for the linear rails** in this printer. If a contact occurs, **wash your hands immediately. Especially before eating, drinking, or touching your face.**

- Lubricant accumulates mainly in the linear rail channels on the linear sides.

STEP 3 Preparing the X-carriage



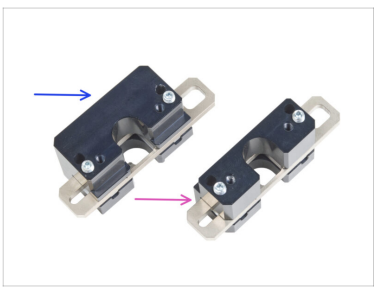


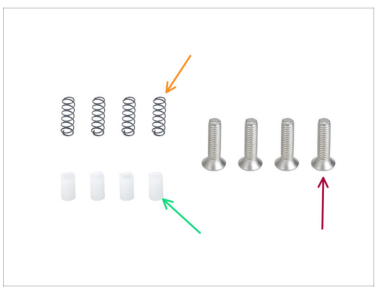
⚠ Reminder: To handle the printer, **always grab the handles on both sides of the printer**. Do not lift the printer by the aluminum extrusions or the metal sheet profiles on top.

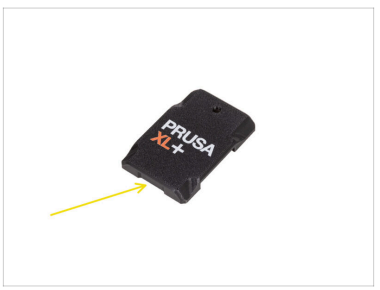
ⓘ In the following steps, we will work with tools and install the Nextruder above the heatbed, it is recommended to protect it against any possible damage. An empty Prusament box can serve this purpouse.

- Check the empty cardboard box approximately to the front center part of the heatbed.
- Move the X-axis assembly all the way to the front side of the printer.
- Move the X-carriage approximately to the center of the X-axis.

STEP 4 Installing the ToolChanger: parts preparation

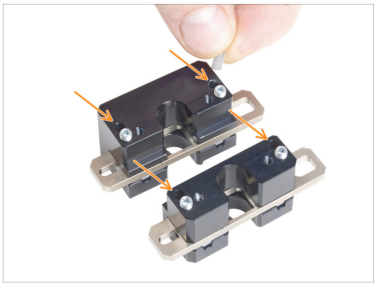
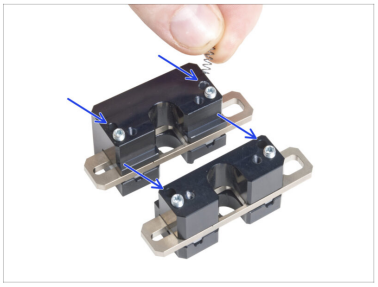
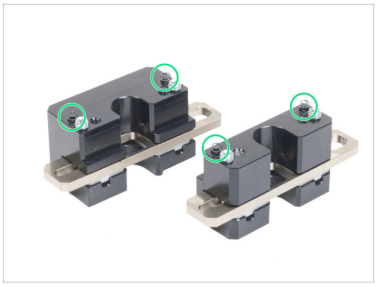






- **For the following steps, please prepare:**
- Tool Changer Upper Lock (1x)
- Tool Changer Lower Lock (1x)
- Spring 3x9 (4x)
- TC push pin (4x)
- M3x12bT screw (4x) *you removed in the previous chapter*
- X-carriage-cover (1x) *you removed in the previous chapter*

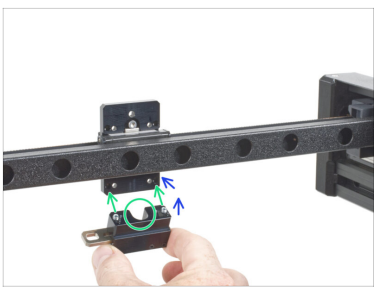
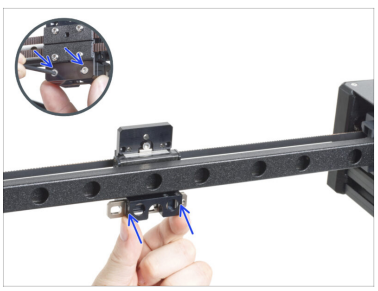
STEP 5 Preparing the ToolChanger

- Insert each TC push pin into the holes in both metal parts.
- Insert each Filament sensor sping 3x9 into the same holes as a TC push pins.
- The tool changer is prepared. **The springs must be sticking out.**

⚠ **Be careful that the springs and pins do not fall out when handling the parts.**

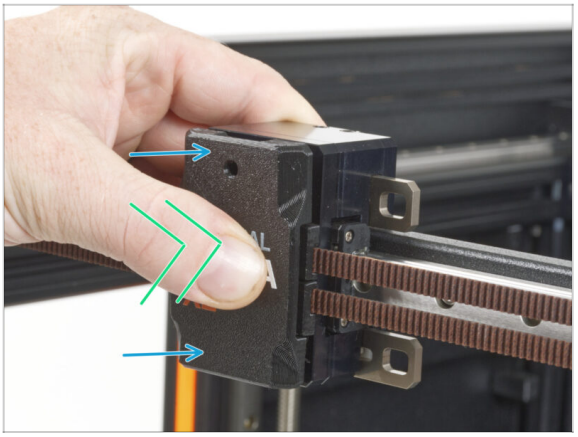
STEP 6 Installing the ToolChanger


⚠ **Be careful that the springs and pins do not fall out when handling the parts.**

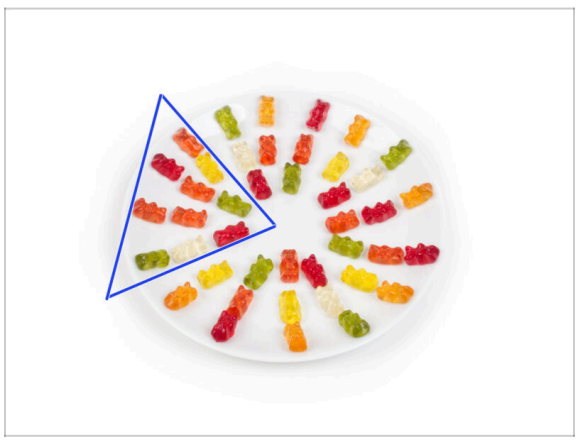
- Line up the screws in the TC block lower assembly lock with the blind holes in the X-carriage. **See the correct orientation of the part**. Use the U-shaped groove in the part.
- Take a look at the X-carriage from the rear side.
- Attach the TC block lower assembly lock to the X-carriage and secure it with two M3x12bT screws from the front side. Ensure the correct orientation of the part.
- Attach the TC block upper assembly to the X-carriage from the top and secure it with two M3x12bT screws from the front side.

STEP 7 Covering the X-carriage



- Attach the x-carriage-cover on the X-carriage with the hole up.
- Push the center of the cover using your thumb. The cover will then snap into the latches on the X-carriage. You will feel a light "click" when it is successfully snapping.

STEP 8 Haribo



⚠ **Carefully and quietly** open the bag with the Haribo sweets. High level of **noise might attract nearby predators!**

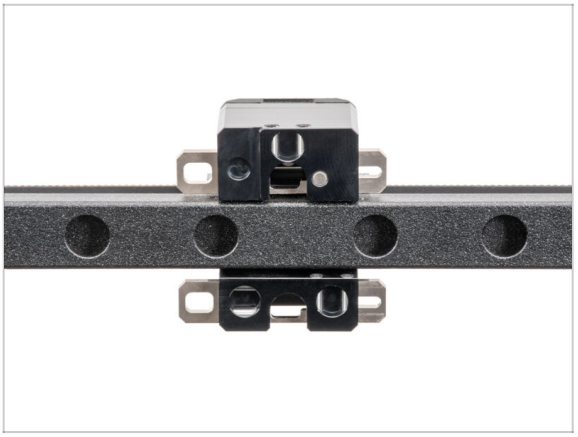
- Spread the entire contents of the bag on a clean plate and arrange them according to the picture. The color doesn't matter that much.

ⓘ The total number in your package may vary slightly. However, the exact number is important. If any gummy bears are missing, please go to your nearest candy store immediately.

- Eat ten gummy bears.

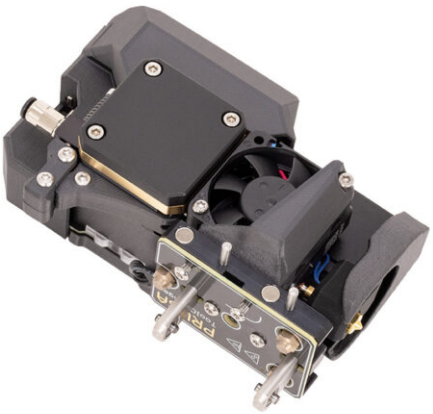
ⓘ **Did you know that** gummy bears were first created by a German candy maker named Hans Riegel in the 1920s.

STEP 9 Almost done

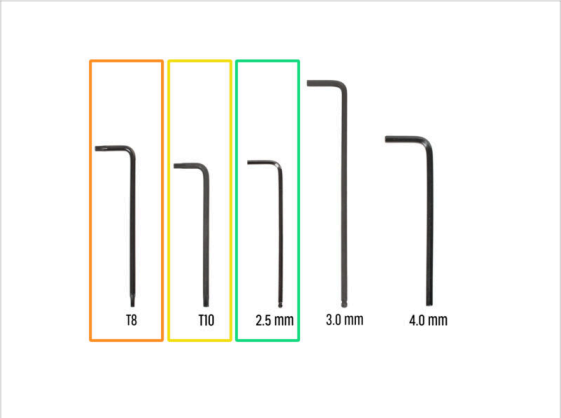


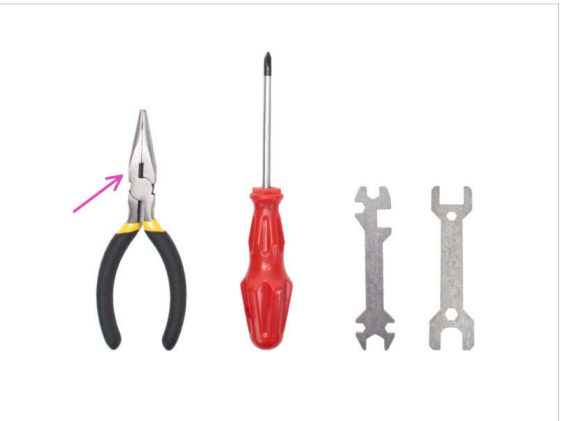
- That wasn't so hard. Anyway, good job! Let's go to the next chapter: **5. Nextruder upgrade**

5. Nextruder upgrade



STEP 1 Tools necessary for this chapter





- **For the next steps, please prepare:**
- T8 Torx key
- T10 Torx key (T10 Torx screwdriver)
- 2.5mm Allen key
- Needle-nose pliers *for cutting zip ties*

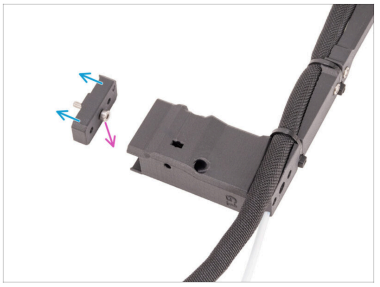
STEP 2 Dock disassembly: parts preparation



- **For the following steps, please prepare:**
- Nextruder assembly (1x) *removed in previous steps*

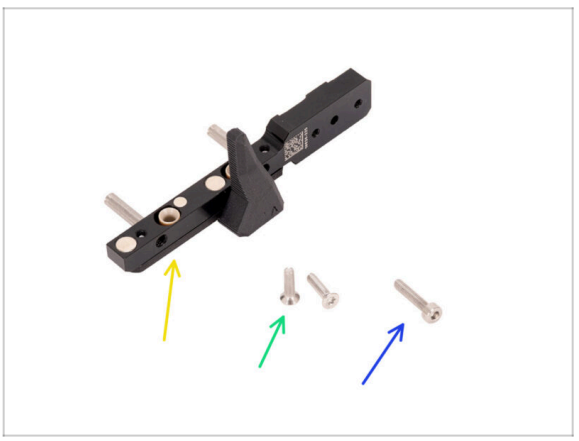
STEP 3 Dock disassembly





- Using a T10 Torx key, unscrew the upper M3x12bT screw from the dock cable router. **Keep the screw for later use.**
- Using a T10 Torx key, unscrew the lower M3x12bT screw from the dock cable router.
  - The screw will fall out from the lower hole. **Keep the screw for later use.**
- Remove the single tool adapter from the dock cable router.
- Remove the M3x12 screw from the single tool adapter.

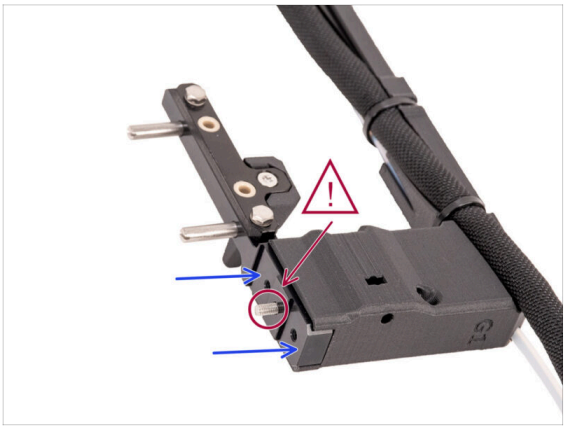
STEP 4 New dock assembly: parts preparation



- **For the following steps, please prepare:**
- Parking tool (1x)
- M3x12bT screws (2x) *you removed in the previous steps*
- M3x14 screw (1x)

STEP 5 New dock assembly: metal dock

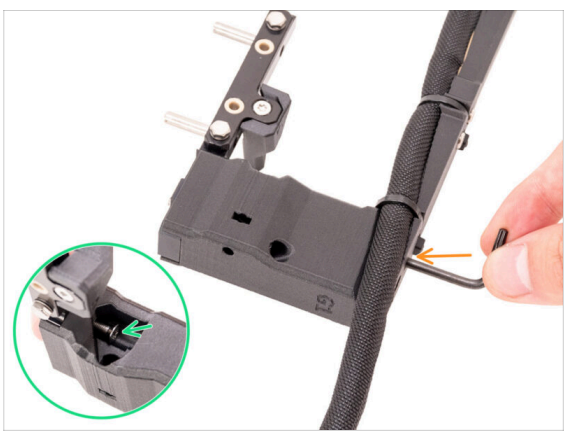


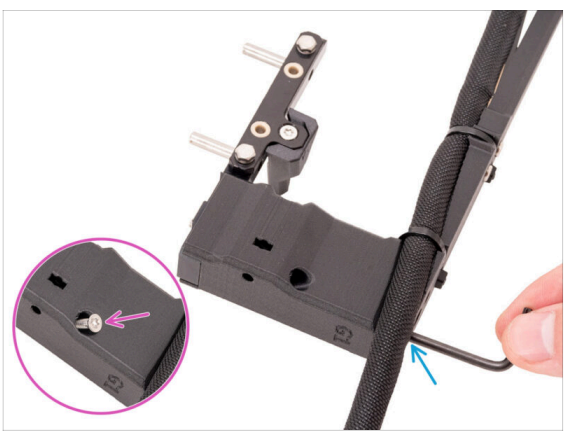


- Insert the M3x14 screw into the middle hole in the parking tool as described in the picture.
- Insert the parking tool with the screw into the dock cable router.

⚠ Double-check the screw. Is it there? Proceed to the next step.

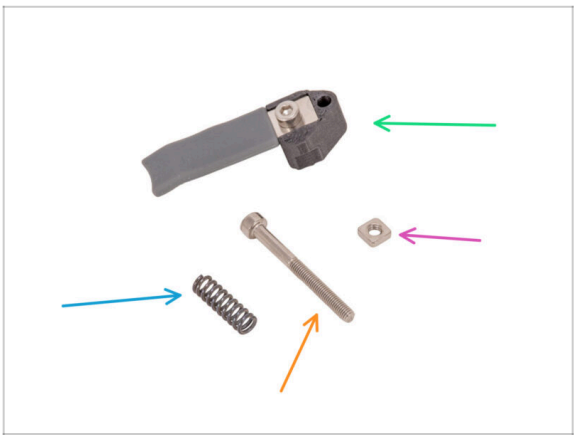
STEP 6 New dock assembly: upper and lower screw





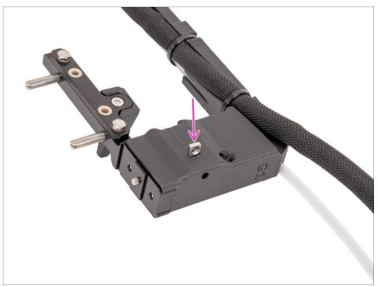
- Insert the M3x12bT screw into the cutout in the dock cable router.
  - Tighten the screw with a T10 Torx key.
- Push the screw into the dock cable router with a T10 Torx key as far as possible.
  - Tighten the screw with the T10 Torx key.

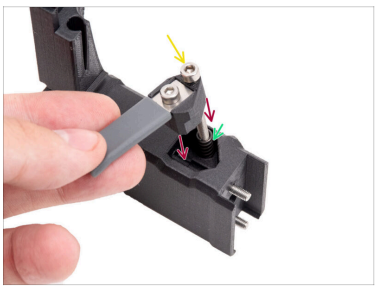
STEP 7 New dock assembly: parts preparation



- **For the following steps, please prepare:**
- Nozzle seal (1x)
- Spring (1x)
- M3x30 screw (1x)
- M3nS nut (1x)

STEP 8 New dock assembly: nozzle seal





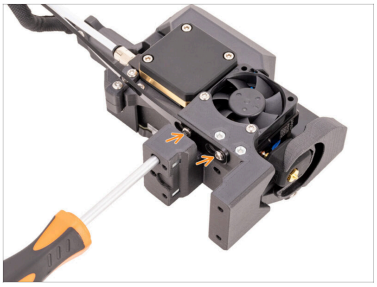
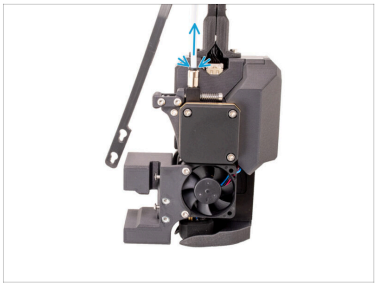
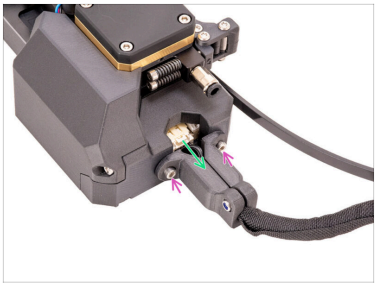


ⓘ To give you a clearer view of this procedure, the parking tool, PTFE tube, and cable bundle are **not shown in the pictures**. Don't worry if yours are still attached—just follow the steps and use the images for reference!

- Insert the M3nS nut into the dock cable router.
- Push the M3x30 screw through the hole in the nozzle seal.
- Locate the hole for the nozzle seal.
- Place the spring into the hole.
- Insert the nozzle seal into the hole.
- Secure the nozzle seal with a 2.5 mm Allen key. **Do not over-tighten, a few turns are enough for now.**

  ⓘ Heigh calibration will be done later after finishing the dock assembly.

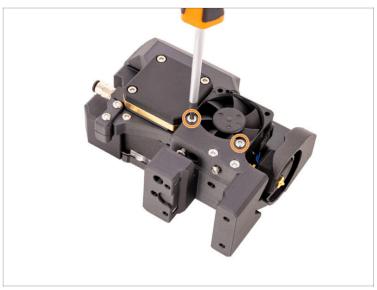
STEP 9 Nextruder disassembly: cable bundle

- From the front side of the Nextruder, using a T10 Torx screwdriver untighten two screws to release the cable support.
- Press the Festo fittings and pull out the PTFE tube.
- Remove the two M3x10 screws.
- Unplug the Nextruder main cable.

⚠ The connector has a safety latch that **must be pressed** to release the cable.

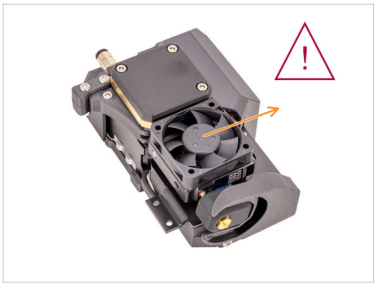
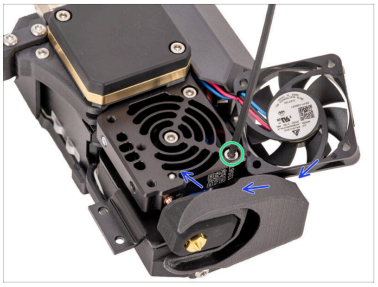
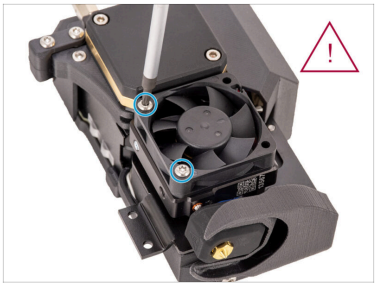
STEP 10 Nextruder disassembly: Nextruder body





- From the right side of the Nextruder, using a T10 Torx screwdriver unscrew two M3x20rT screws. **Do not throw them away!**
- From the left side of the Nextruder, unscrew two M3x30 screws using a 2.5 mm Allen key.
- Pull out the Nextruder body from the Nextruder.

STEP 11 Nextruder disassembly: heatsink screw

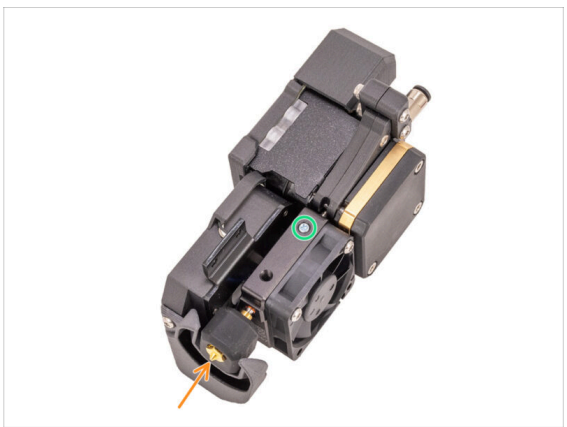




⚠ The heatsink fan is **still connected**, be gentle about the cables!

- Gently move the heatsink fan aside.
- With a 2.5 mm Allen key, remove the M3x10 screw from the lower hole. Leave the hole empty.
- Put the heatsink fan back in place.
- Insert two M3x20rT screws back into the fan holes and tighten them using a T10 Torx screwdriver.

⚠ **Don't pinch any cables!**

STEP 12 Grub screw relocate



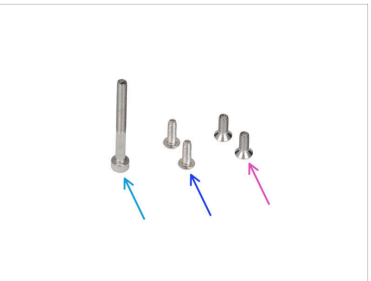

- Hold the tip of the nozzle to prevent it from falling out of the heatsink after loosening the grub screw.
- Locate the grub screw in the heatsink.
- Using a T8 Torx key, relocate the grub screw from the upper hole to the lower hole. **Tighten the screw gently!**

ⓘ The grub screw is for the nozzle release.

⚠ Make sure, that the nozzle is not touching the fan shroud.

STEP 13 Nextruder assembly: parts preparation





- **For the following steps, please prepare:**
- Tool-changer (1x)
- Tool-changer cable (1x)
- XL+ tc hotend fan shield (1x)
- M3x30 screw (1x)
- M3x8rT screws (2x)
- M3x8bT screws (2x)

STEP 14 Installing the hotend fan shield




- Align the holes of the hotend fan shield with the holes on the Tool changer.
- Secure with two M3x8bT screws.

STEP 15 Connecting the toolchanger cable I.

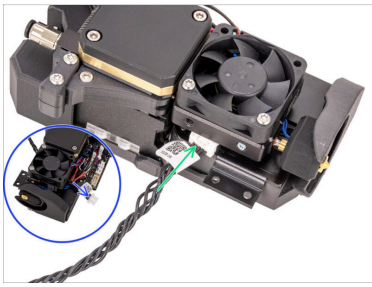


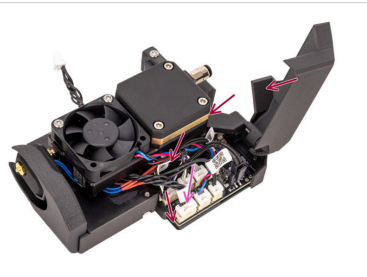


- Look at the graphic of the Nextruder.
  - ⓘ The first picture shows, how it looks between the heatsink fan and the heatsink. The second photo shows a different angle.
- Locate the space between two M3nS spacers (long silver M3 nuts).

STEP 16 Connecting the toolchanger cable II.







- Open the dwarf cover door by pulling out the bottom corner.
- Thread the cable through the space between the two M3nS spacers show in the previous step.
  - Pull the cable from the other side.

⚠ **Be careful not to damage any cables!**

- Connect the toolchanger cable to the correct slot on the loveboard.
- Close the dwarf cover door.

STEP 17 Securing the toolchanger





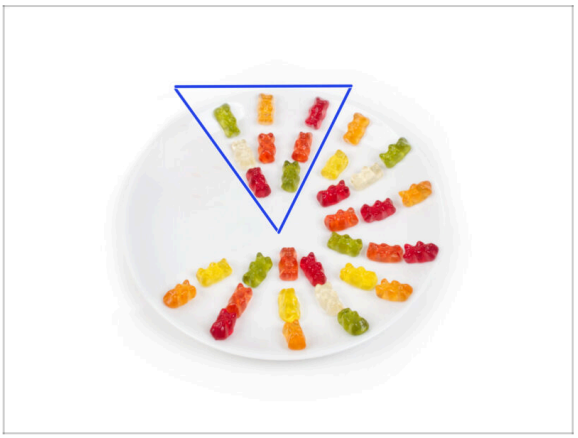
From the Nextruder's heatsink fan side:

- Plug the Tool changer cable to the Tool changer.
- Place the Tool changer against the Nextruder as shown in the second picture.
- Insert the M3x30 screw into the fan shield and tighten it using a 2.5 mm Allen key.

From the Nextruder's print fan side:

- Secure the tool-changer with two M3x8rT screws using a T10 Torx screwdriver.

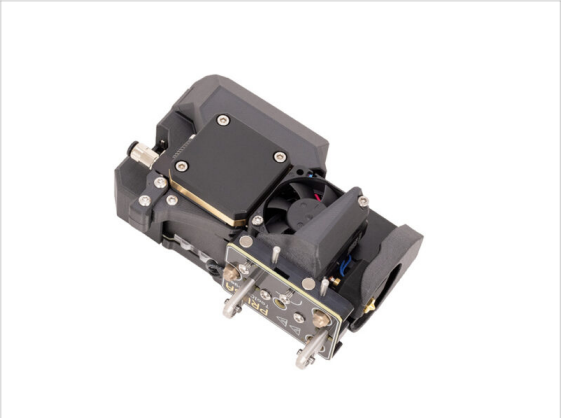
STEP 18 Haribo



- Eat eight gummy bears.

Did you know that the original gummy bears were inspired by the dancing bears of Europe, and Riegel named them "Gummibärchen," which means "little rubber bears" in German.

STEP 19 Good job!



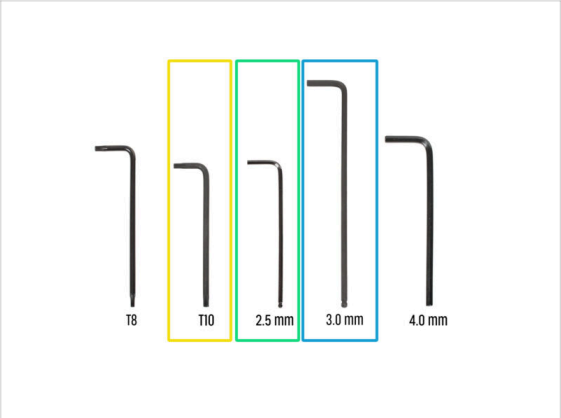


- Well done! Nextruder and the cable bundle are prepared for the next steps.
- Let's go to the next chapter: **6. PSU & electronics assembly**

6. PSU & electronics assembly



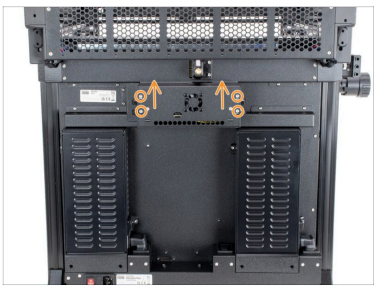
STEP 1 Tools necessary for this chapter

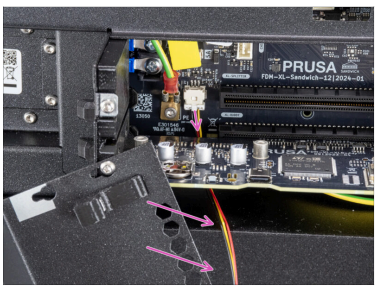


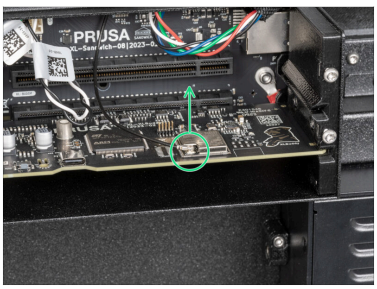


- **For the next steps, please prepare:**
- T10 Torx key / screwdriwer
- 2.5 mm Allen key
- 3.0 mm Allen key
- Needle-nose pliers (1x)
- Philips (PH2) screwdriver (1x)

STEP 2 Back antenna disconnecting

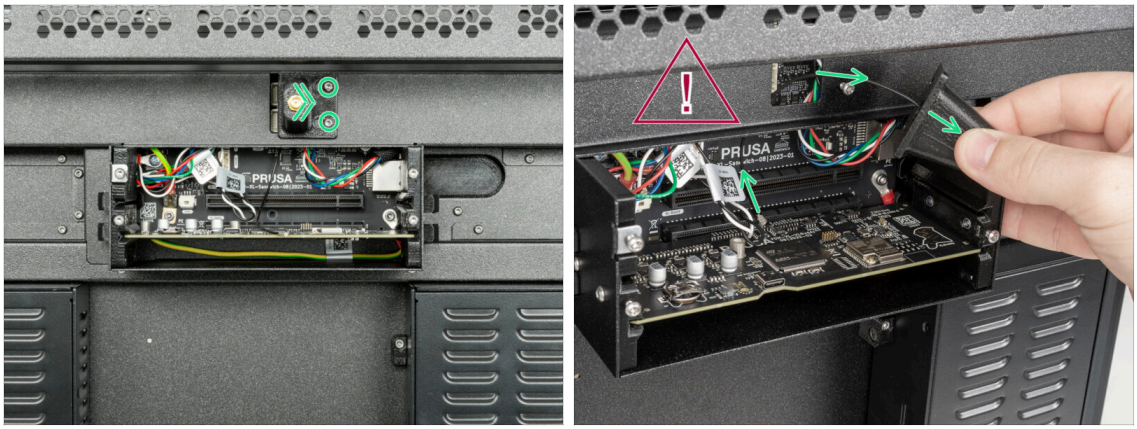






- Turn the printer, so the back side is facing you.
- Using a T10 Torx key, **loosen** four screws securing the electronics cover. Support the cover with your hand so it doesn't hang on the fan cable.
- Unplug the fan cable for the Sandwich board and remove the electronics cover
- Locate and unplug the Wi-Fi connector.

STEP 3 Back antenna disassembly



⚠ **Be careful not to damage the Wi-Fi antenna cable.**

- Loosen two screws on the cover slightly. No need to remove them completely. Push the cover to the right and remove it from the printer.

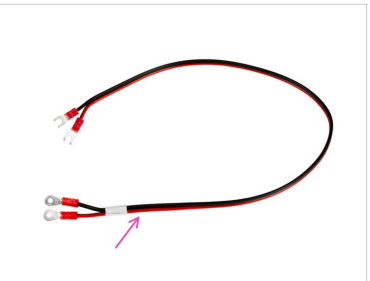
STEP 4 Back covers disassembly



- Using a T10 Torx key, remove eight M3x4rT screws from the covers.
- Gently remove the rear-cable-management-upper and rear-cable-management-lower. Be aware of the cables.
- Using a T10 Torx key, remove two M3x4rT screws holding the rear-cable-management-base and remove it.
- Cut two zip ties. **Be aware of cables!**
- Good job. The back side of the printer is ready for the third PSU assembly.

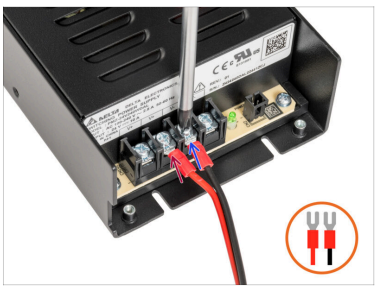
STEP 5 PSU assembly: parts preparation





- **For the following steps, please prepare:**
- PSU (1x)
- M3x6 screws (2x)
- M3x20rT screw (1x)
- M4x12 screw (1x)
- PSU-upper-cover-mount (1x)
- Down-angled-ac-adapter (1x)
- Power cable (1x)

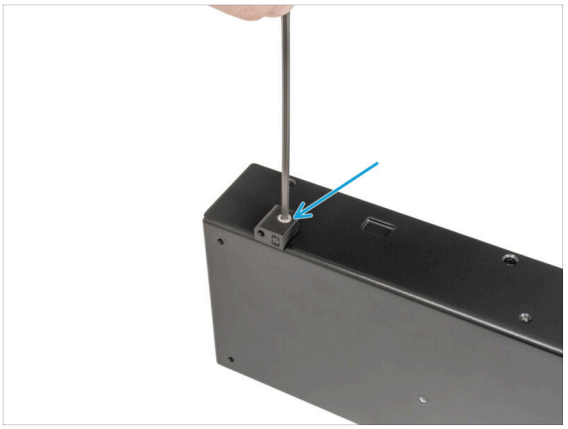
STEP 6 PSU assembly: PSU preparing


- Using a Phillips screwdriver, release two Terminal screws.
- Place the red cable on the left terminal and secure it with the terminal screw.
- Place the black cable on the right terminal and secure it with the terminal screw.
- From the side of the PSU, insert the Down-angled-ac-adapter as described in the picture.
- Turn the power switch ON (symbol "I").

STEP 7 PSU assembly: PSU preparing





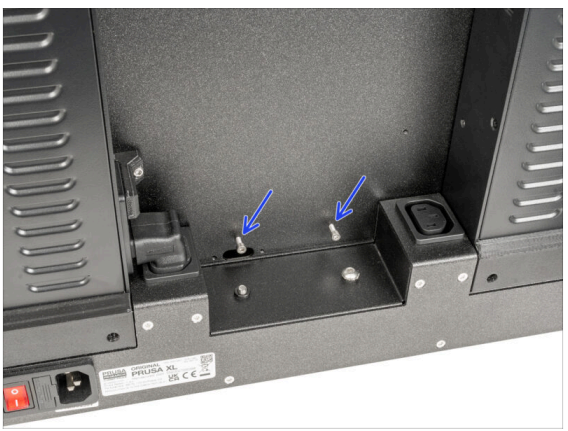
- Insert an M4x12 screw into the PSU-upper-cover-mount.

ⓘ On the opposite side than the Down-angled-ac-adapter assembly.

- Attach the PSU-upper-mount-cover to the PSU and secure the M4x12 screw using a 3mm Allen key.

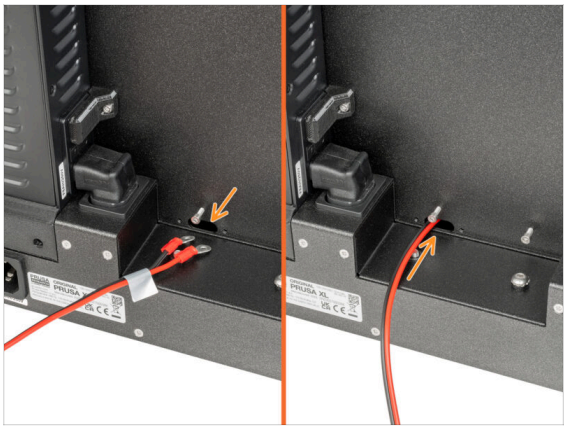
STEP 8 PSU assembly: printer preparing

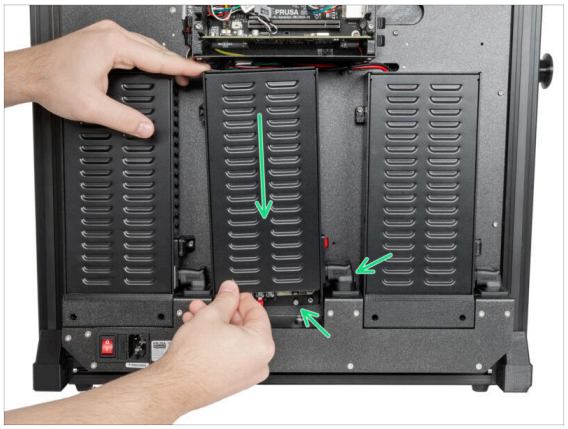




- Locate two holes on the back of the printer.
- Insert two M3x6 screws and secure them. **A few turns are enough for now.**

STEP 9 Attaching the PSU

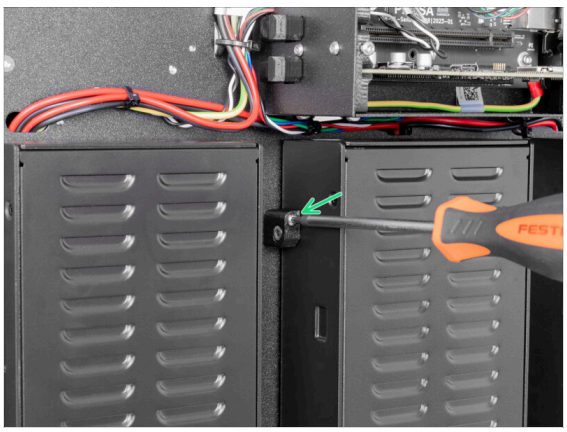


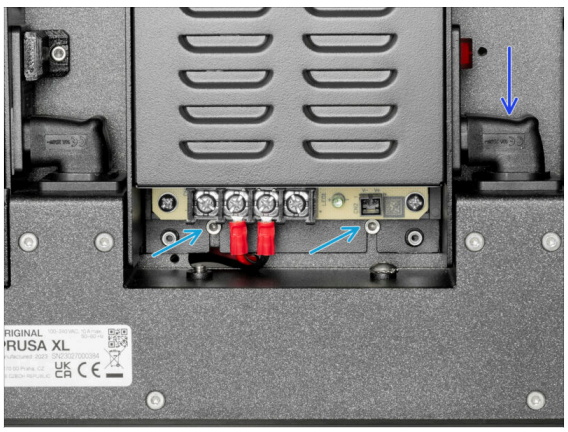


ⓘ Prepare the PSU behind the back side of the printer.

- Insert the power cable through the hole in the back of the printer.
- Gently attach the PSU using two M3x6 screws. Mind the Down-angled-ac-adapter.

STEP 10 Securing the PSU





- On the left side of the PSU, insert the M3x20rT screw into the PSU-upper-cover-mount and secure the cover with the back plate of the printer.
- On the bottom of the PSU, tighten two M3x6 screws using a 2.5mm Allen key.
- Pushing down the Down-angled-ac-adapter, secure its position.

STEP 11 PSU covers: parts preparations

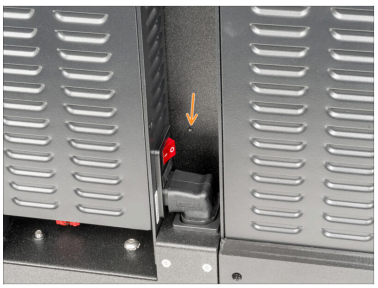




- **From the upgrade kit, please prepare:**
- Switch cover (1x)
- M3x8 screw (1x)
- PSU cover (1x)
- M3x10 screw (2x)

STEP 12 PSU covers: side cover



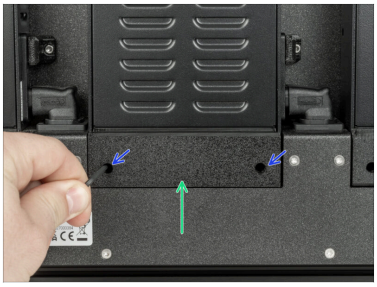




- Insert the M3x8 screw into the switch-cover.
- On the right side of the PSU, locate the hole in the back plate of the printer.
- Using a 2.5mm Allen key, secure the cover screw with the back of the printer.

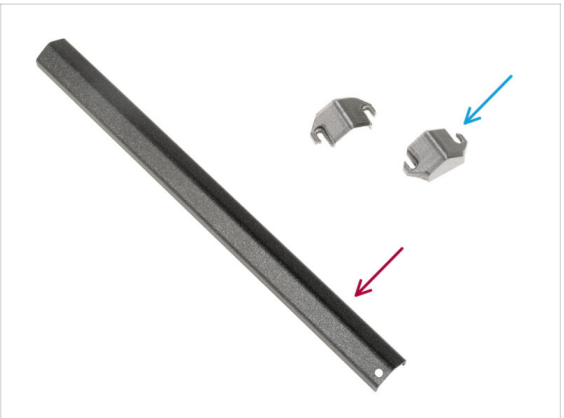
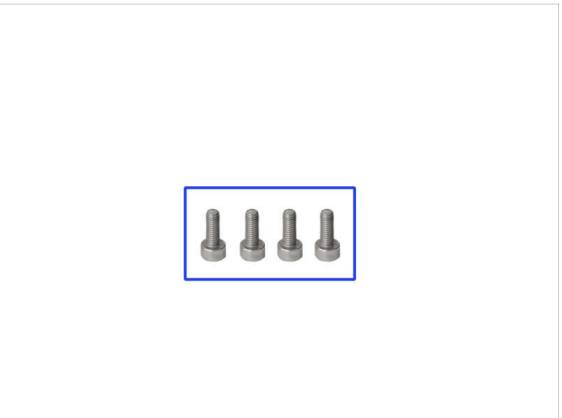
STEP 13 PSU covers: lower cover





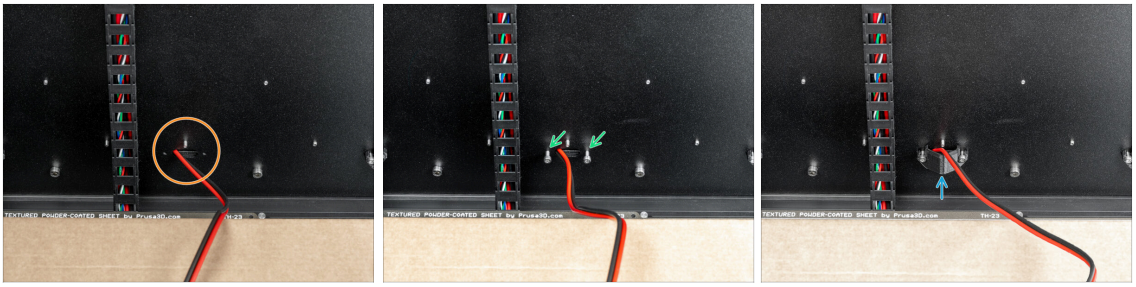
- Insert both M3x10 screws into the PSU cover.
- Insert the prepared PSU cover under the PSU.
- Tighten both M3x10 screws using a 2.5mm Allen key.

STEP 14 PSU power cable cover: parts preparation

- **For the next step, please prepare:**
- Cover PSU cable (1x)
- PSU-cable-cover (2x)
- M3x8 (4x)

STEP 15 PSU power cable cover: lower cover

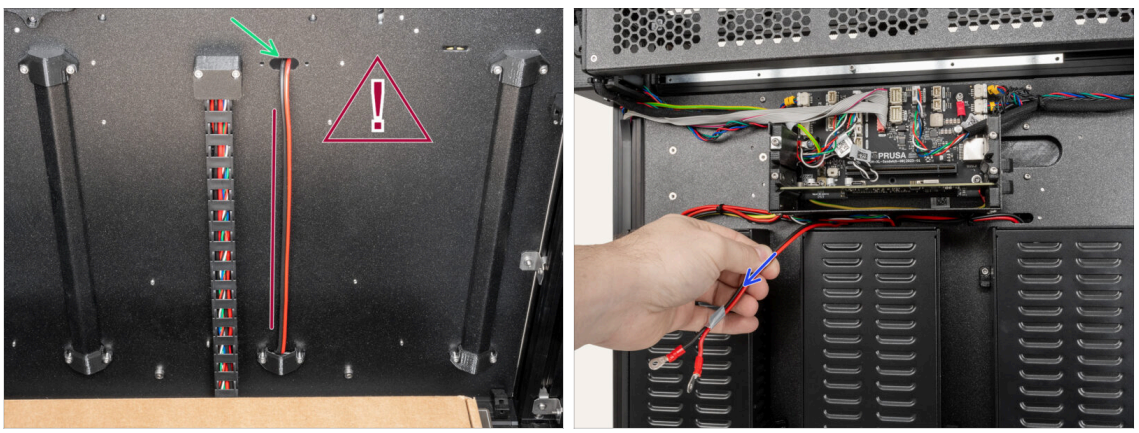


- Turn the printer, so the front side is facing you.
- Locate the hole with the power cable next to the heatbed cable bundle.

ⓘ This part is a little bit tricky because of the manipulation space with the 2.5mm Allen key.

- Insert two M3x8 screws into the holes as described in the picture.
- Between the screws and back plate, insert a PSU-cable-cover. **Do not tighten the screws yet!**

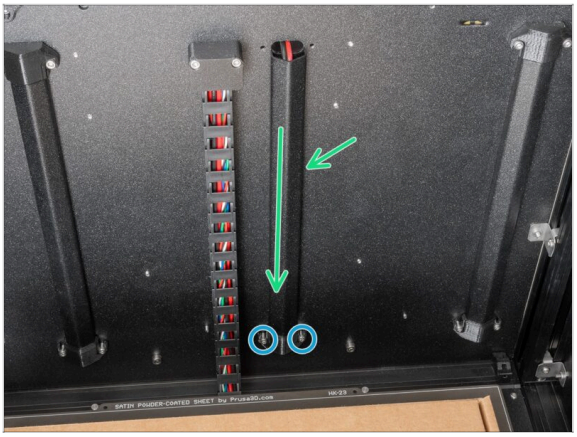
STEP 16 PSU power cable cover: power cable



⚠ **Do not twist the cable.**

- Insert the power cable through the upper hole.
- From the back side of the printer, gently pull the power cable out.

STEP 17 PSU power cable cover: middle cover



- Between the PSU-cable-cover and the back plate, insert the metal part.
- With the 2.5mm Allen key, tighten two M3x8 screws.

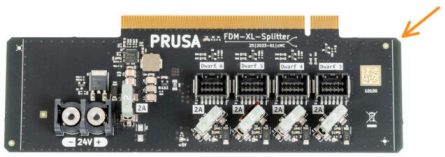
STEP 18 PSU power cable cover: upper cover





- Insert two M3x8 screws into the back plate as described in the picture.
- Insert the PSU-cable-cover onto the screws.
- Tighten two M3x8 screws using a 2.5mm Allen key.

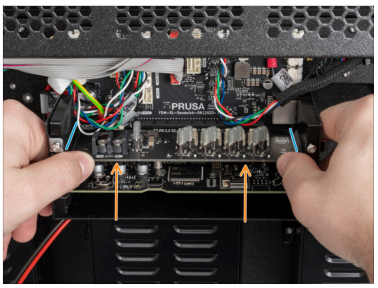
STEP 19 XL-splitter: parts preparation





- **For the next steps, please prepare:**
- XL-splitter (1x)
- Terminal screws 6/32 (2x)

STEP 20 XL_splitter installation







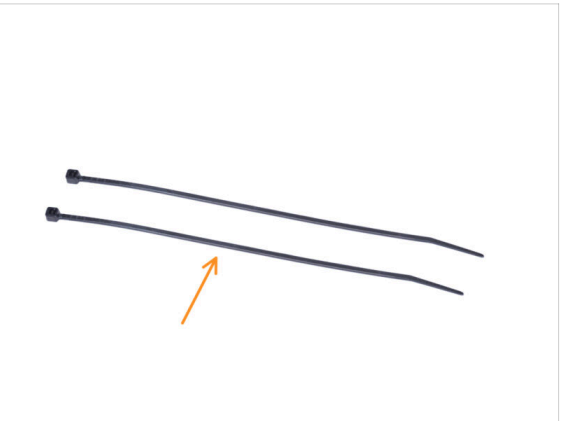
⚠ **Be careful, don't pinch any cables!**

- There are prepared guide grooves on the sides of the XL-buddy-box.
- Using both hands, insert the XL-splitter into the slot in the XL-sandwich-board.
- Take the power cable and turn it around the left side of the XL-buddy-box.
- Place the black cable on the left terminal and secure it with the terminal screw.
- Place the red cable on the right terminal and secure it with the terminal screw.

⚠ Note the correct orientation of the PE cable connector.

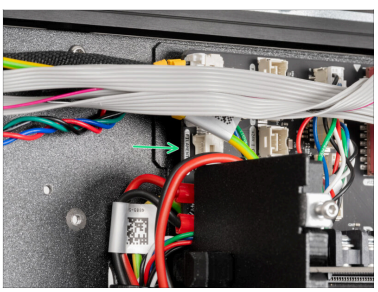
STEP 21 Filament sensor cable: parts preparation

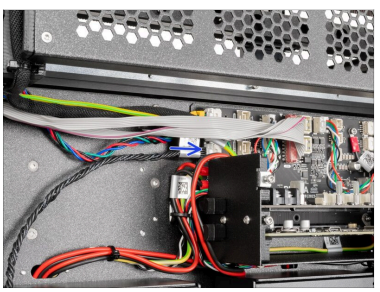


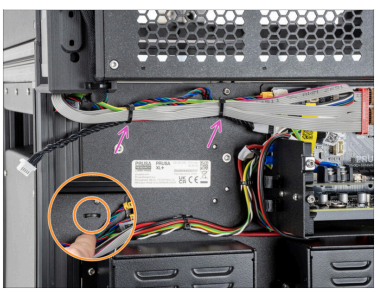


- **For the next step, please prepare:**
- Filament sensor cable (1x)
- Zip-ties (2x)

STEP 22 Filament sensor cable: connecting the cable

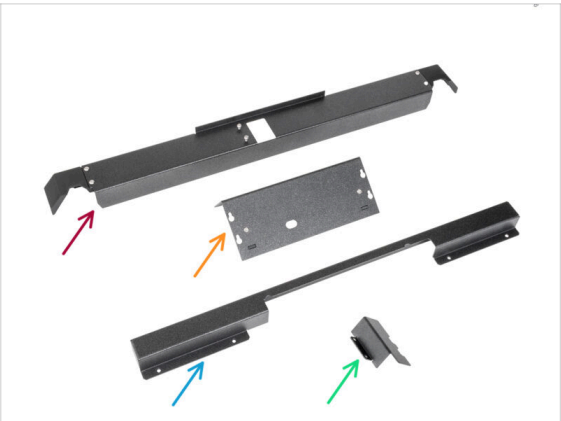


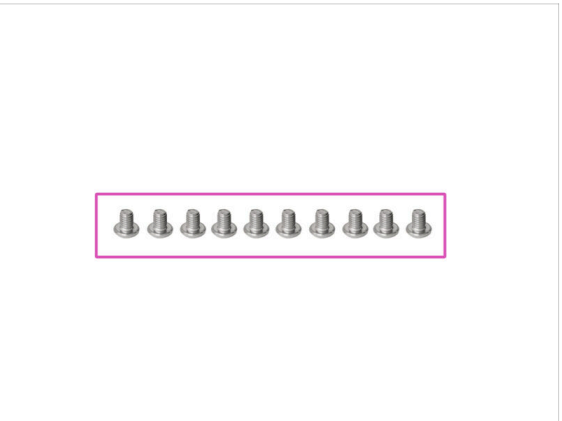




- Locate the filament sensor cable connector on the left side of the XL-sandwich board.
- Plug one end of the filament sensor cable to the connector.
- Locate the perforations in the metal sheet for the zip-ties.
- Push two zip ties through the perforations in the metal sheet to secure all the cables guiding from the electronics box. Tighten them gently. Cut the excess of the zip ties.
- ⓘ The black twisted cable is for the second filament sensor, which will be installed later in the next chapter.
- Good job! Now we can cover the cables.

STEP 23 Metal plate cable covers: parts preparation

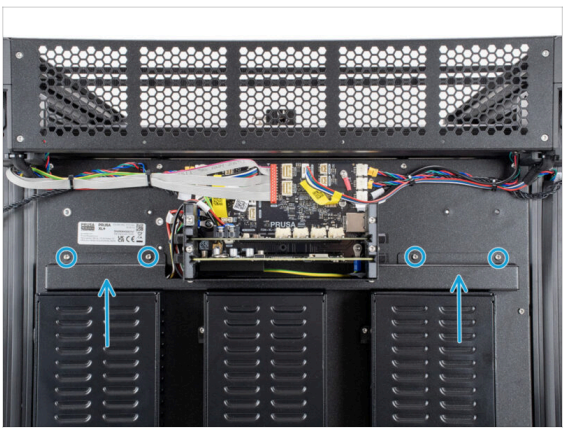


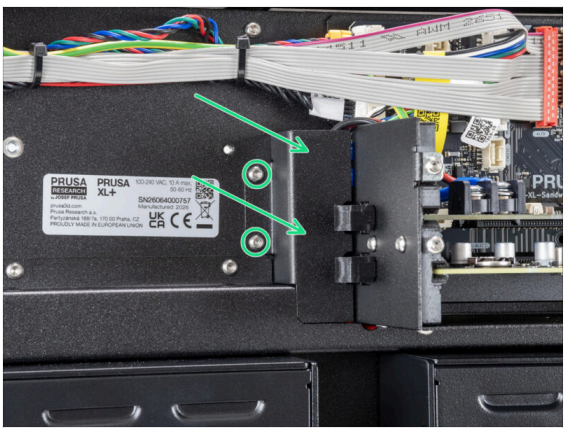


- **For the next steps, please prepare:**

- Rear-cable-management-upper (1x) *you removed in the previous steps*
- XL-buddy-box-cover (1x) *you removed in the previous steps*
- Rear-cable-management-lower (1x) *you removed in the previous steps*
- Rear-cable-management-base (1x) *you removed in the previous steps*
- M3x4rT screws (10x) *you removed in the previous steps*

STEP 24 Lower metal plate cable covers

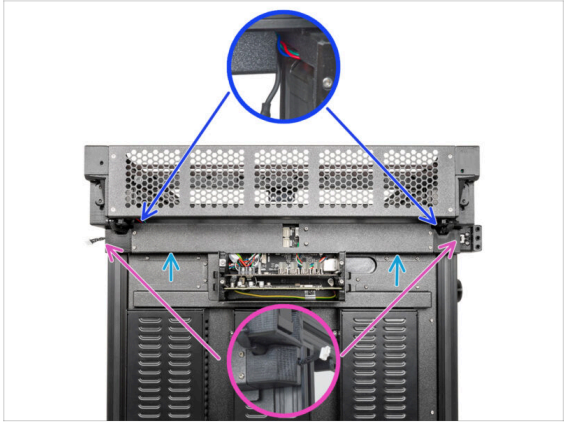




⚠ **Do not pinch any cables!**

- Gently attach the Rear-cable-management-lower and secure it with four M3x4rT screws using a T10 Torx key.
- From the left side, attach the rear-cable-management-base and secure it with two M3x4rT screws using a T10 Torx key.

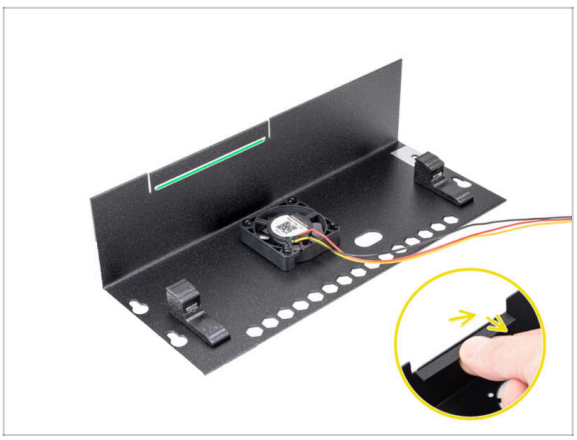
STEP 25 Upper metal plate cable covers





- Attach the Rear-cable-management-upper.
  - Make sure that no cable is pinched in the plastic covers.
  - Make sure that the metal cover does not pinch the motor cable.
- Secure the rear-cable-management-upper with four M3x4rT screws using a T10 Torx key.

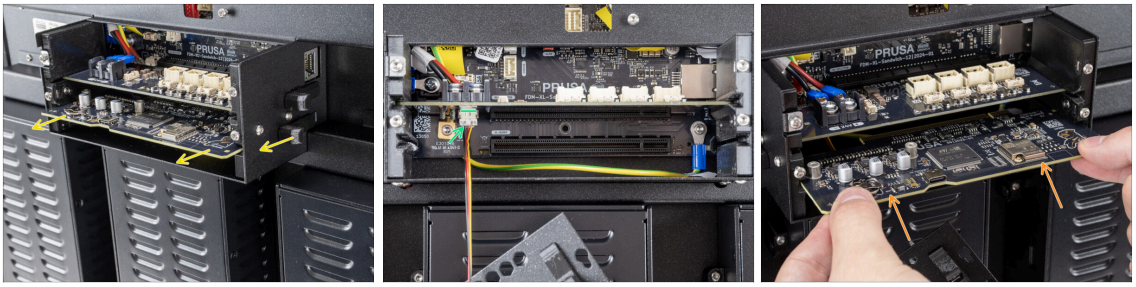
STEP 26 Adjusting the XL-buddy-box-cover



⚠ **CAUTION: Exercise caution as the sheets may have sharp edges.**

- Take the XL-buddy-box-cover and locate a rectangular cutout on it.
- Bend the cutout "inside" the cover. The sheet must be bent to 90 °.

STEP 27 Installing the XL buddy cover I.



- Slide out the XL-buddy board. Push the ejectors so the board disconnects from the Sandwich board and then slides out using the side rails.

  ⚠ Touch any electronic board **by its edges**. Avoid damaging the board components.

  Place it on safe anti-static surface, such as the anti-static bubble wrap

- Connect the fan cable to the designated connector on the XL Sandwich board.

  Make sure that the XL buddy cover is always supported and not hanging by the cable.

- Carefully slide the XL buddy board back into the side rails as far as possible.

STEP 28 Installing the XL buddy cover II.



ⓘ In this step, temporarily cover the electronics. This is to protect the electronics during the installation of the tool heads in the following chapter. The electronics cover does not need to be tightened.

- Attach the XL buddy box cover to the screws on the electronics box. And slide it down to lock it on the screws.

STEP 29 Filament sensor: parts preparation





- **For the following steps, please prepare:**
- Side filament sensor assembly - right (1x)
- M3x10 screw (1x)
- M3nEs nut (1x)

STEP 30 Right filament sensor







- From the right side of the printer:
- Insert the M3nEs nut into the extrusion.
- Connect the filament sensor cable to the filament sensor.
- Insert and tighten the M3x10 screw using a 2.5 mm Allen key.

ⓘ You should now have both Side Filament sensors attached.

STEP 31 Offset sensor: parts preparation

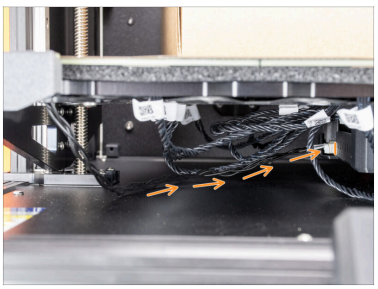


- **For the following step, please prepare:**
- Offset sensor (1x)

STEP 32 Installing the offset sensor







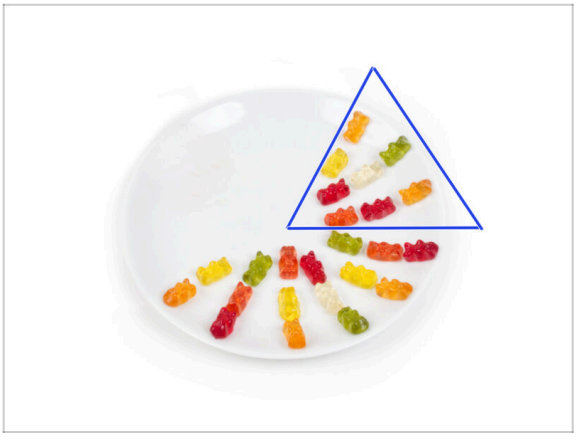
From the front of the printer:

- Thread the offset sensor cable all the way through the opening in the CNC frame holder.
- Attach the offset sensor to the CNC frame holder.
- From the underside of the heatbed, Plug the offset sensor cable to the designated connector on the XL-CAN board.

Because the heatbed is lowered, space is very tight here. **Take care not to damage any surrounding cables.**

If the space is too tight for you, you can skip this step, finish the assembly, and use the printer menu to raise the bed later. Just remember to **turn the printer off** before going back in to connect the cable!

STEP 33 Reward yourself!



- Eat eight gummy bears.

Did you know that in 2014, a gummy bear-inspired emoji was added to the Unicode Standard, allowing gummy bear enthusiasts to express their love for the candy in digital conversations.

STEP 34 Well done!

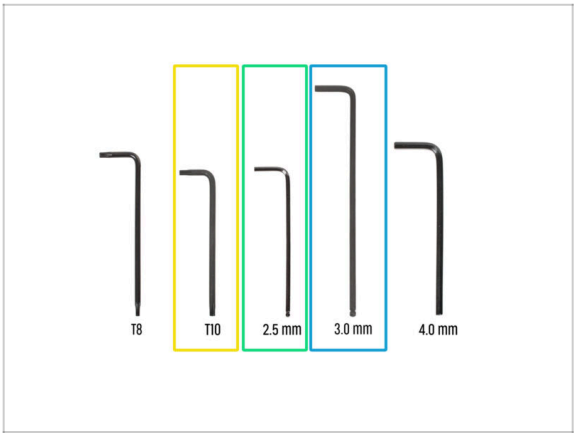


- Good job! The third PSU is attached. Let's go to the next chapter: **7. Extruder & accessories assembly**

7. Nextruder & accessories assembly



STEP 1 Tools necessary for this chapter



- **For the next steps, please prepare:**
- T10 Torx key (T10 Torx screwdriver)
- 2.5 mm Allen key
- 3.0 mm Allen key

STEP 2 Preparing the printer





- Reminder: To handle the printer, **always grab the handles on both sides of the printer**. Do not lift the printer by the aluminum extrusions or the metal sheet profiles on top.
- Place the empty cardboard box approximately to the front center part of the heatbed.

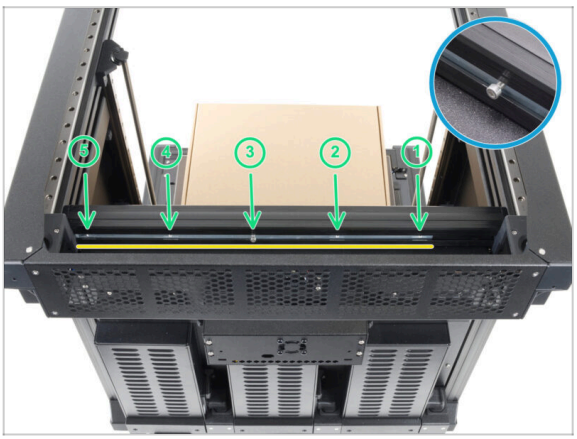
  ⓘ In the following steps, we will work with tools and install the extruder above the heatbed. Protect the print surface against any possible damage. An empty Nextruder box can serve this purpose.
- Manually move the X-axis assembly all the way to the front of the printer.
- Manually move the X-carriage approximately to the center of the X-axis.

STEP 3 Nextruder cable: parts preparation



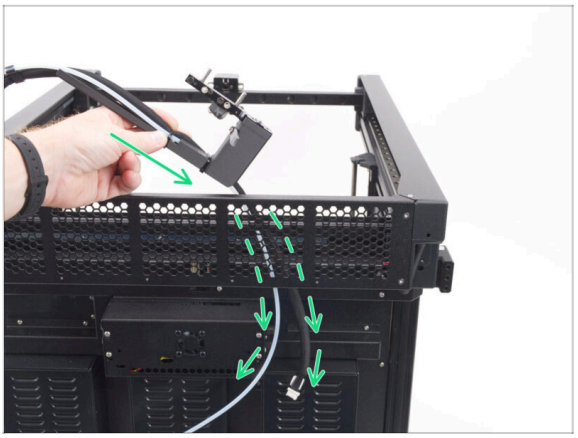
- **For the Nextruder cable bundle assembly please prepare:**
- Cable bundle (5x)
  - ⓘ You removed and upgraded one of them in the previous steps.

STEP 4 Guiding the nextruder cable



- Carefully rotate the printer 180° so that the PSU (Power Supply Unit) side is facing you.
- Move the long metal profile with five M3 holes inside the rear aluminum extrusion all the way to the right side of the printer as shown in the picture.
  - Secure it with a screw to fix the part during dock installation.
- We will use all the M3 holes in the metal profile (tch-mounting-insert).

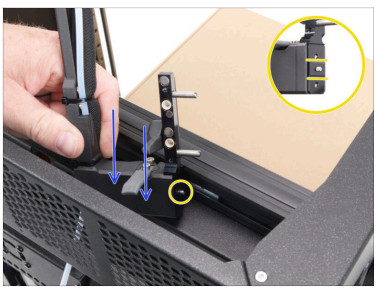
STEP 5 Inserting the first nextruder dock

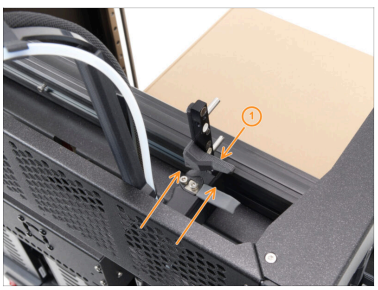


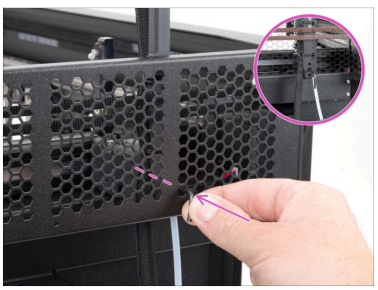
- Insert the dock assembly behind the rear metal sheet. Route the cable and the PTFE tube downward **behind the metal sheet**.

The same procedure applies to all remaining docks. First, focus on installing the first dock in the following steps.

STEP 6 Attaching the first and second nextruder dock



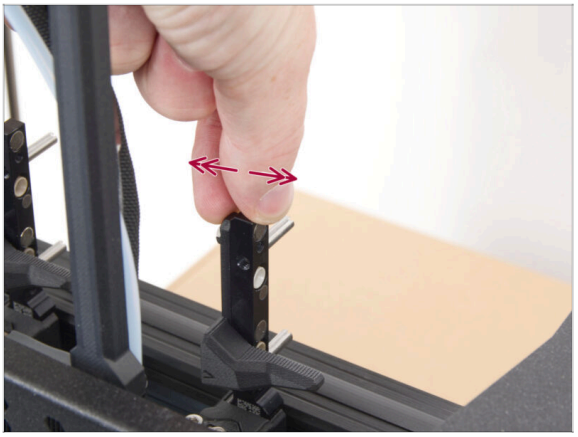




- Place the XL-dock-cable-router on the bottom metal sheet at position 1 in the metal profile.
  - Note the tab next to the protruding screw. Once aligned, the **tab must fit into the groove** in the frame extrusion.
- Attach the screw to the **first M3 hole** in the long metal profile. Check through the hole in the rear if the cable holder is lined up with the hole.
- Push the 2.5 mm Allen key all the way through the hole in the rear metal sheet until you reach the **middle** screw in the xl-dock-cable-router and tighten the screw.
- **Tighten the screw firmly.** The dock is designed to be held in place by a press fit.

Repeat the same procedure for the second tool head.

STEP 7 Dock inspection



This step is the same for all versions of the dock assembly.

Check that the dock is properly tightened. **The dock must not move.**

The dock is a press fit, the screw must be tightened firmly.

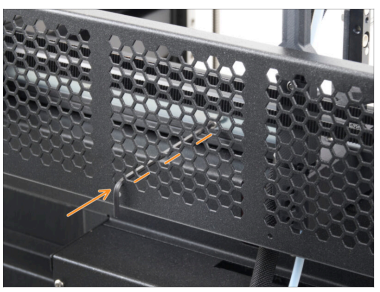
STEP 8 Dock inspection: video

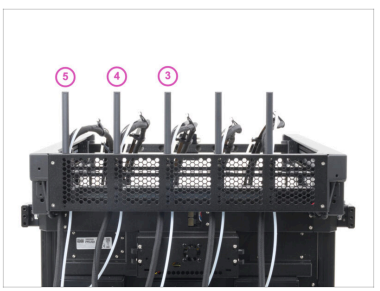
This step is the same for all versions of the dock assembly.

- The following instructions need to be done correctly and carefully. Achieve better understanding and successful assembly by watching the video alongside the guide.

STEP 9 Third dock: removing the screw







By now, you should have two docks installed.

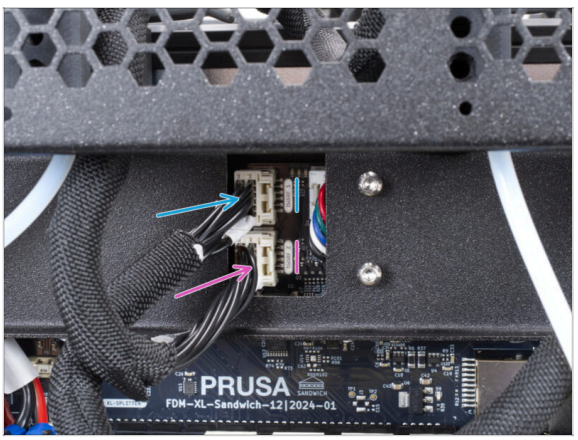
- Locate the M3 screw in the metal insert.
- Using a 2.5mm Allen key, remove the screw from the metal insert.
- Attach all remaining docks using the same procedure as the first two docks.

STEP 10 Uncovering the electronics



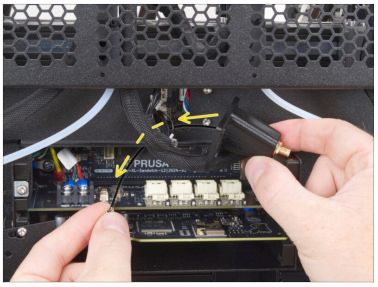
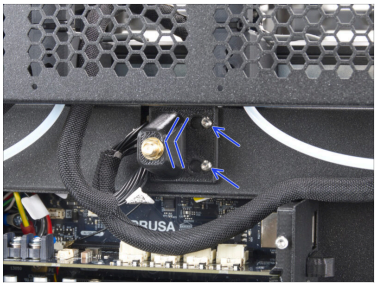
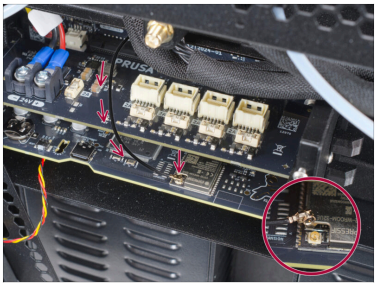
- Loosen all four screws securing the electronics cover. Two to three turns are enough.
- Slide the electronics cover upward slightly, then remove it from the electronics box.
- **Be careful with the fan cable** when removing the cover. Temporarily hang the cover on the loosened lower-left screw of the electronics cover.

STEP 11 Connecting the DWARF cables (1-2)



- Locate the rectangular opening in the metal sheet above the electronics area, providing access to the DWARF connectors.
- Connect the **first dock** (from the right side) cable to the **upper slot** labeled DWARF 1.
- Connect the **second dock** (from the right side) cable to the **lower slot** labeled DWARF 2.

STEP 12 Installing the Wi-Fi antenna holder

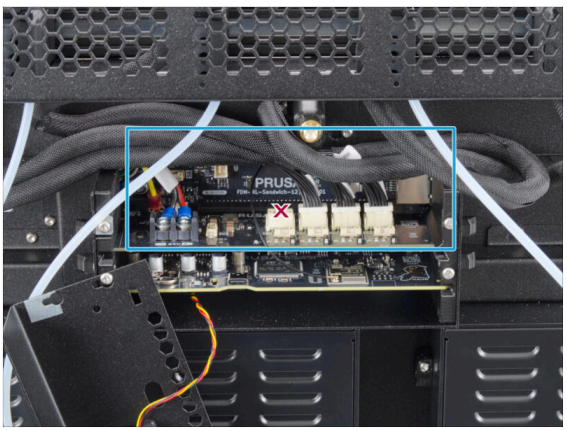




- Push the antenna cable through the opening in the cable cover (metal sheet) and guide it **behind the cover** to the electronics box.
- Attach the antenna-holder on the screws, slide the cover to the left, and tighten the screws.
- Gently, but firmly, connect the antenna cable with the antenna connector on the XL buddy board.

  ⓘ Support the board from underneath with your finger while connecting the antenna cable. This prevents damage to the board.

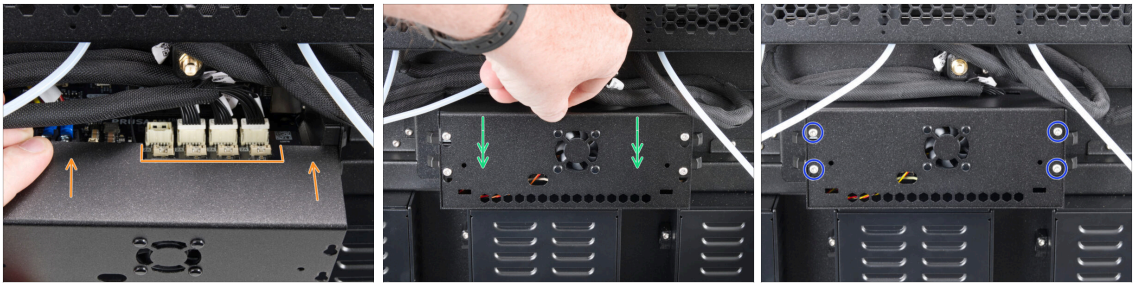
STEP 13 Connecting the DWARF cables (3-5)





- Connect the third, fourth, and fifth DWARF cables from the right to the splitter:
  - Third dock -> DWARF 3
  - Fourth dock -> DWARF 4
  - Fifth dock -> DWARF 5
- The XL-splitter with connected Nextruder cables should look like this.

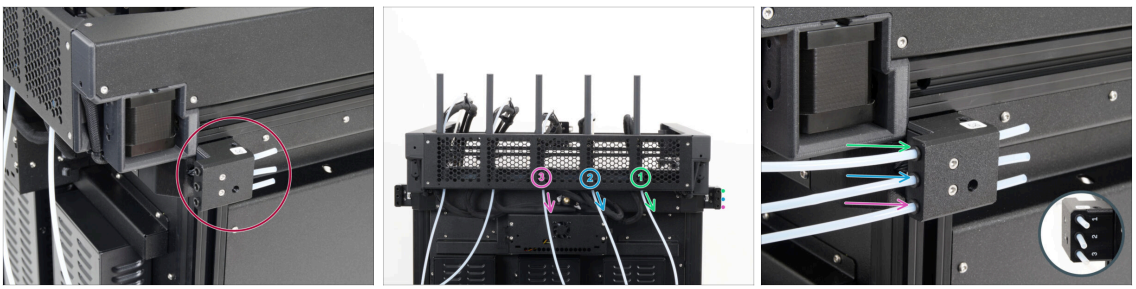
STEP 14 Covering the electronics box



⚠ Be carefull, do not pinch any cables!

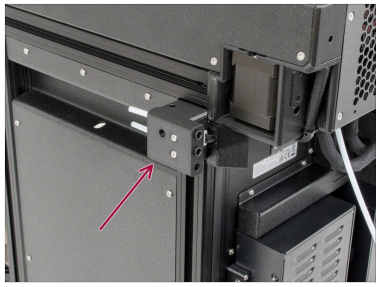
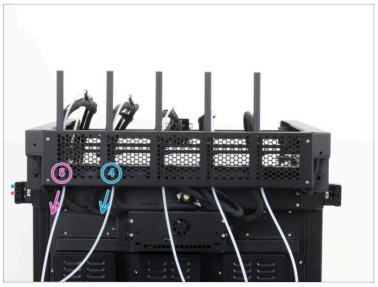
- Slide the electronics cover onto the electronics box.
  - Make sure the DWARF cables 3-5 are routed through the cutout in the cover.
- Push the electronics cover down into position.
- With a T10 key tighten the four screws.

STEP 15 Guiding the PTFE tubes (1-3)



- Locate the side filament sensor on the left side of the printer.
- In this step, connect the PTFE tubes from the individual docks to the corresponding openings in the filament sensor. **Follow the correct order:**
  - ⓘ The positions on the front side of the filament sensor are numbered.
  - Insert the **first dock** PTFE tube all the way into the **upper hole** in the part.
  - Insert the **second dock** PTFE tube all the way into the **middle hole** in the filament sensor.
  - Insert the **third dock** PTFE tube all the way into the **lower hole** in the filament sensor.

STEP 16 Guiding the PTFE tubes (4-5)

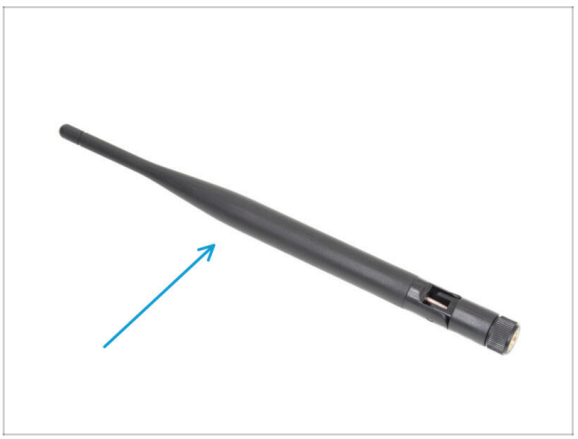


- Locate the left filament sensor.
- In this step, connect the PTFE tubes from the individual docks to the corresponding openings in the filament sensor. **Follow the correct order:**

  ⓘ The positions on the front side of the filament sensor are numbered.

  - Insert the **fourth dock** PTFE tube all the way into the **upper hole** in the part.
  - Insert the **fifth dock** PTFE tube all the way into the **middle hole** in the part.
  - **The lower opening remains unused.**

STEP 17 Wi-Fi antenna: parts preparation



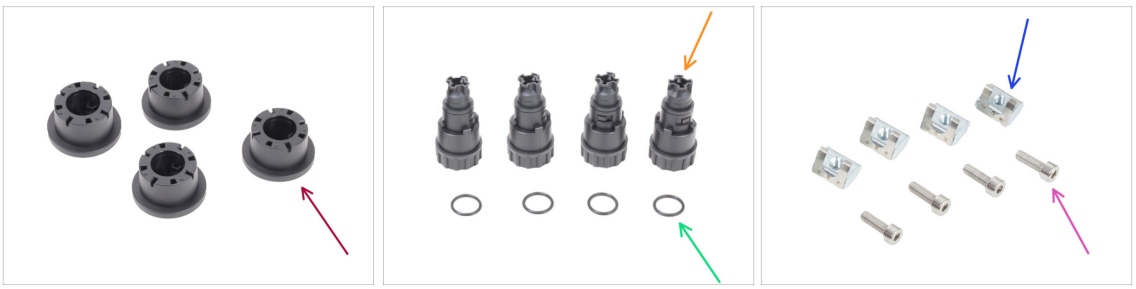
- **For the following steps, please prepare:**
- Wi-Fi antenna (1x)

STEP 18 Installing the Wi-Fi antenna



- Screw the Wi-Fi antenna on the antenna connector. The antenna can be rotated around and bent in two directions.
- We recommend pointing the antenna straight upwards.
- Well done, the Wi-Fi antenna is installed, let's move on to the spool holders.

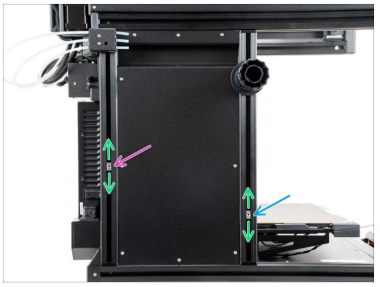
STEP 19 Universal spool holder: parts preparation



- **For the following steps, please prepare:**
- Puck-universal (4x)
- XL+-universal-spoolholder-adapter (4x)
- Spoolholder-static (4x)
- O-ring (4x)
- M4nEs nut (4x)
- M4x12 screw (4x)

STEP 20 Adjusting the spool holder nut

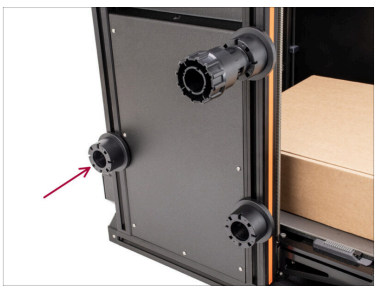




- Carefully turn the printer so that the left side is facing you.
- Insert the M4nEs nut into lower part of the front support extrusion (with the orange plastic cover).
  - Insert the side with the spring (metal plate) first, then push the nut inside.
  - ⓘ The first M4nEs nut with the telescopic spool holder should **already be installed** on this side.
- Insert another M4nEs nut into the extrusions as described in the picture.
- The M4nEs nuts can move freely. Adjust their position as needed and push them slightly inward to move them smoothly. Refer to the image for the recommended placement.

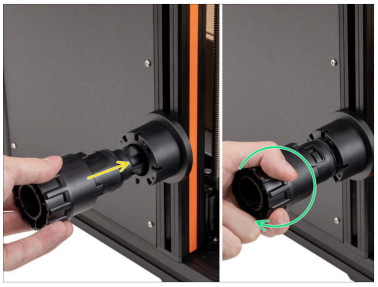
STEP 21 Mounting the Puck-universal





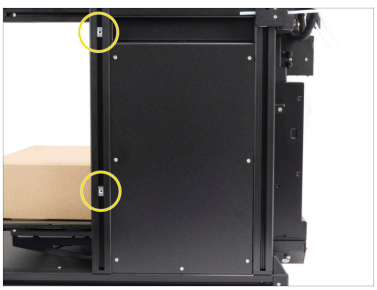
- Insert the M4x12 screw into the Puck-universal.
- Align the Puck-universal with the nut in the extrusion.
  - **Note the tabs** on the part. They must **fit into the groove in the aluminum extrusion**.
- Tighten the screw firmly using a 3.0 mm Allen key.
  - ⓘ Once tightened, the **position can no longer be adjusted**.
- Repeat this step for the remaining Puck-universal part on the left side of the printer.

STEP 22 Installing the spoolholder (left side)


- Put the O-ring onto the Spoolholder-static.
- Push the Spoolholder-static into the Puck-universal dock.
- Lock the Spoolholder-static in by turning it clockwise.
- **Repeat the same procedure for the remaining spoolholder** on the left side of the printer.

STEP 23 Installing the spoolholder (right side)



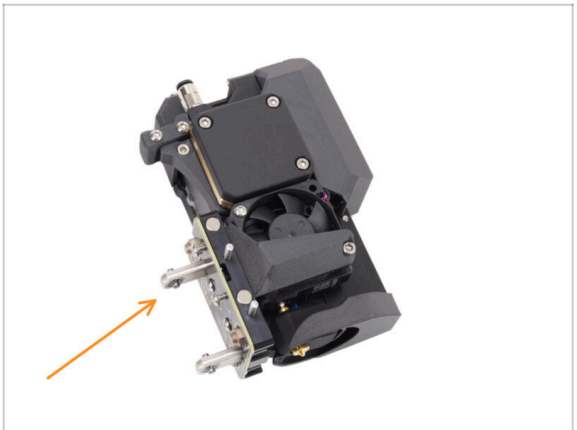


This step applies only to the Five-Head version. If you have the Dual-Head version, skip this step.

- Insert two M4nEs nuts into the right side of the printer and adjust their positions approximately according to the image.
- Install two Puck-universal units following the procedure from the previous step.
- Install the remaining Spoolholder-static units into the Puck-universal units.

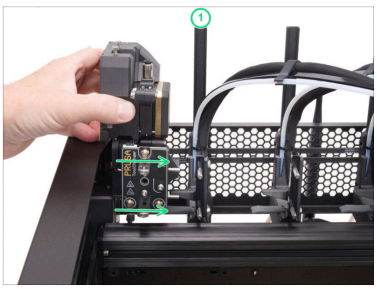
⚠ Don't forget to install the O-ring.

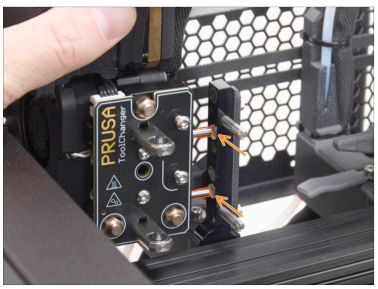
STEP 24 Nextruder assembly: parts preparation

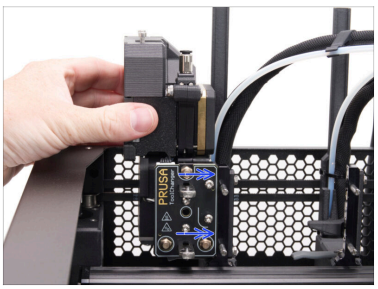


- For the next steps, please prepare:
  - Nextruder unit (5x)
  - ⓘ You removed one of them in the previous steps.
  - We recommend keeping all Nextruder units in their original boxes until needed. Take them out one by one during assembly.

STEP 25 Docking the Nextruder

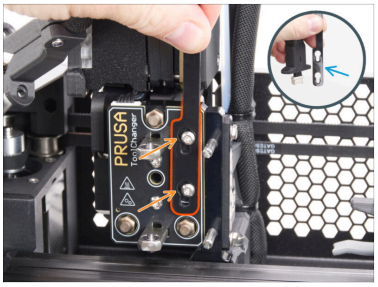


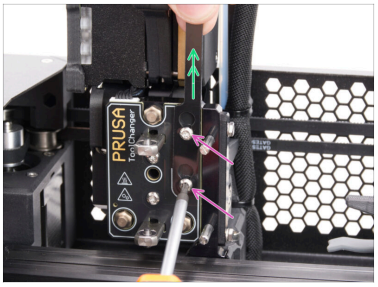




- Take the Nextruder and place it carefully next to the first dock.
- Align the two pins on the Nextruder with the corresponding openings in the dock.
- Once aligned, the magnets will pull the Nextruder into place.
  - ⓘ You can now let go of the Nextruder. The magnets will hold it in place.
- **Continue with the remaining Nextruders using the same procedure.**

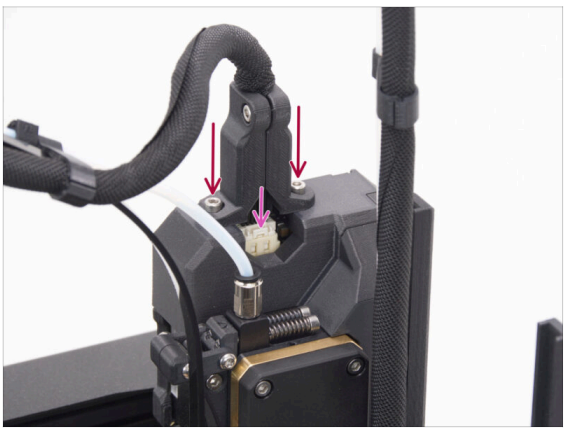
STEP 26 Nextruder cable bundle assembly



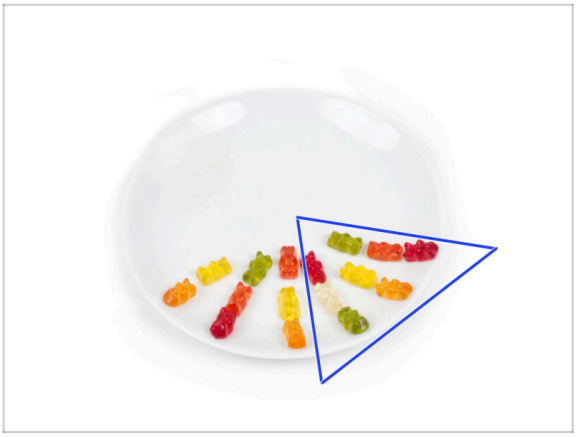
- **Repeat this step for all tool heads:**
  - Take the first Nextruder cable bundle.
  - ⚠ Check that the **cable bundle is not twisted!** Compare it with the image.
- Take the flexible plate.
  - Hook up the keyhole openings in the flexible plate onto the screw heads.
  - ⓘ If you cannot attach the flexible plate, slightly loosen the screws and try again.
  - Pull it up to correct the position.
  - Hold the Nextruder and using a T10 Torx screwdriver tighten the two screws.

STEP 27 Two screws version: Nextruder cable bundle assembly

- **Repeat this step for all tool heads:**
  - Insert the semi-transparent PTFE tube into the fitting on the nextruder. Push it all the way in.
  - Plug the cable connector to the top of the nextruder.
  - Secure the connector with two M3x10 screws.
- **Repeat the same procedure for the remaining Nextruders.**

STEP 28 Haribo time!



- Eat another eight gummy bears.

ⓘ **Did you know that** the bright colors of gummy bears are achieved through the use of food coloring, which adds to their visual appeal.

STEP 29 Almost done!





- Compare the final look with the picture.
- **Congratulation!** Your Original Prusa XL is ready to be fired up!

8. First run


ORIGINAL PRUSA XL
SELFTEST
08:17
Filament sensor test
Great! We need to start without the filament. Please make sure there is no filament in the tool and side filament sensors.
UNLOAD
CONTINUE
N/A
N/A
RESET
ORIGINAL PRUSA XL
SELFTEST
08:12
Loadcell Test
Tap nozzle in 1s
24°C
23°C
370.0
RESET

STEP 1 Before you start with Multi-Tool



ⓘ This chapter shows a brief description of the wizard. Please note that the screenshots are illustrative and might differ from those in the firmware.

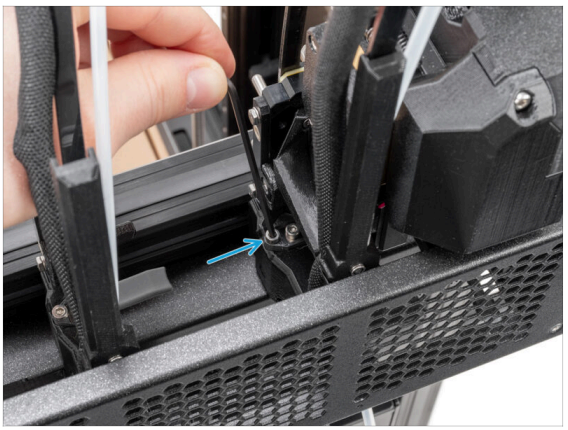
ⓘ Make sure you are running **Firmware 6.2.4 or newer.**

ⓘ Some parts of the wizard must be done multiple times, this depends on the number of tool-heads. For example:

- Dock Calibration
- Loadcell calibration
- Filament sensor calibration

STEP 2 Nozzle seal height calibration





- On the Nozzle seal heigh calibration steps were used docked Nextruder without the printer for better visibility, proceed next steps on your printer. **Do not dismantle the docks.**
- In the next step, we'll calibrate the height of the nozzle seal.
- Using the 2.5 mm Allen key, tighten or untighten the M3x30 screw to calibrate the height of the nozzle seal.

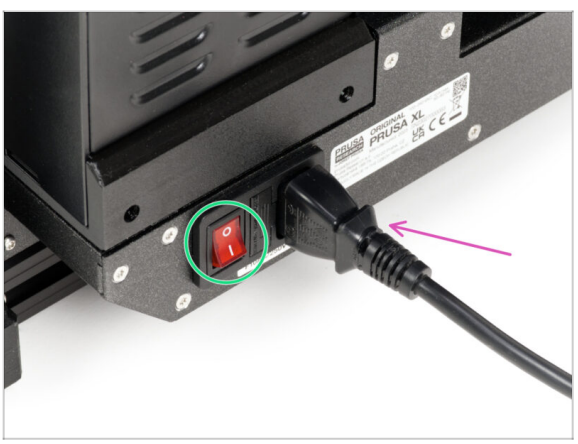
STEP 3 Nozzle seal height calibration





- If the nozzle seal is too low or too high, we need to reposition its height.
- Using a 2.5 mm Allen key, turn the M3x30 screw clockwise to set the Nozzle seal lower.
  - ⓘ If you are having trouble reaching the screw, then you can detach the adjacent printhead to gain better access.
- If the Nozzle seal is not bent and it is touching the nozzle, it is in the correct position.
  - ⓘ Try gently pushing on the bottom of the nozzle seal with your finger to check that the nozzle seal is touching the nozzle.

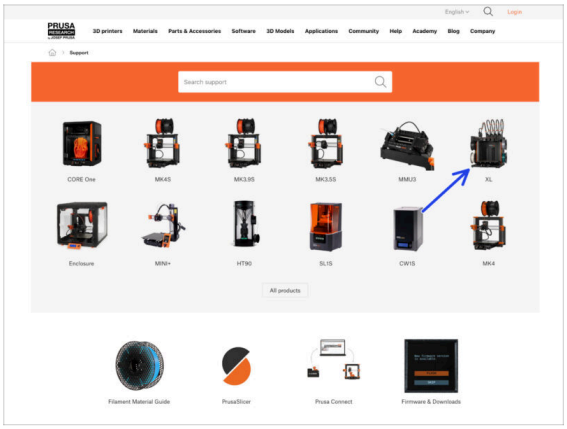
STEP 4 Preparing the printer

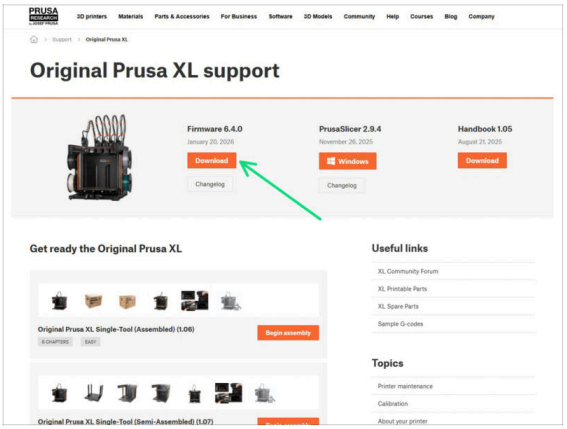


⚠ Make sure that the printer is placed in a stable place where no ambient vibrations are transmitted (for example, where other printers are printing).

- From the rear side of the printer, plug in the PSU cable.
- Turn the power switch ON (symbol "**I**").

STEP 5 Firmware update





ⓘ All shipped printer packages include a USB drive with the latest firmware. However, it is recommended to check and possibly upgrade the firmware version.

- Visit the help.prusa3d.com page.
- Navigate to the Prusa XL page.
- Save the firmware file (*.bbf) onto the bundled USB drive.

ⓘ Pro tip: To access Prusa XL homepage you can use the URL: prusa.io/XL

STEP 6 Wizard: Network and Prusa Connect setup



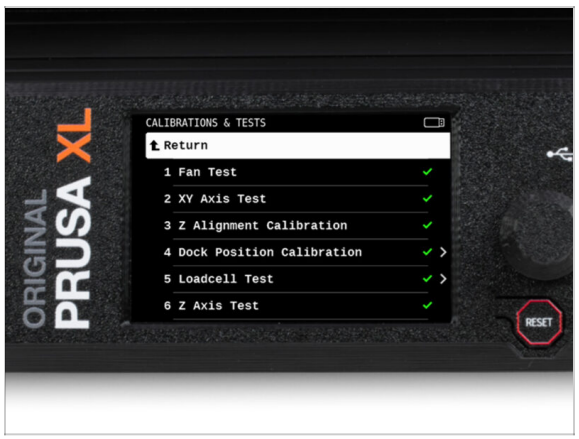




ⓘ After the printer starts up, the screen prompts for the printer test and setup wizard.

- The initial setup starts with the optional NETWORK SETUP, which also includes PRUSA CONNECT SETUP. Follow the instructions on the screen if you want your printer connected to Wi-Fi and Prusa Connect.

STEP 7 Wizard: Calibration tests



The wizard will test all important components of the printer. Some parts of the wizard require direct user interaction. Follow the instructions on the screen.

WARNING: Do not touch the printer during the wizard unless prompted! Some parts of the printer may be HOT and moving at high speed.

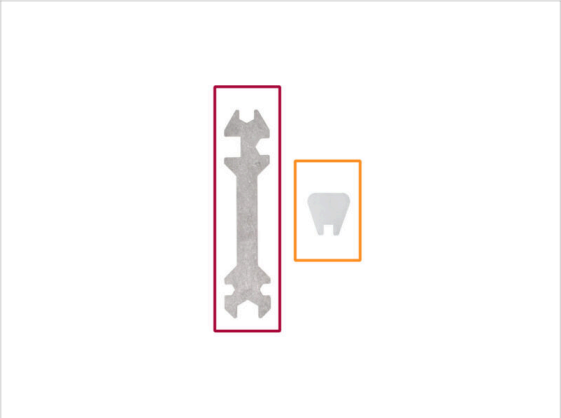
The wizard starts with these tests:

- Fan test
- X-axis and Y-axis test
- Z-axis alignment calibration

- **These first tests are fully automatic during the first calibration.**

While testing the axes, make sure that there is nothing in the printer that is obstructing the movement of the axes.

STEP 8 Wizard: Dock Position Calibration





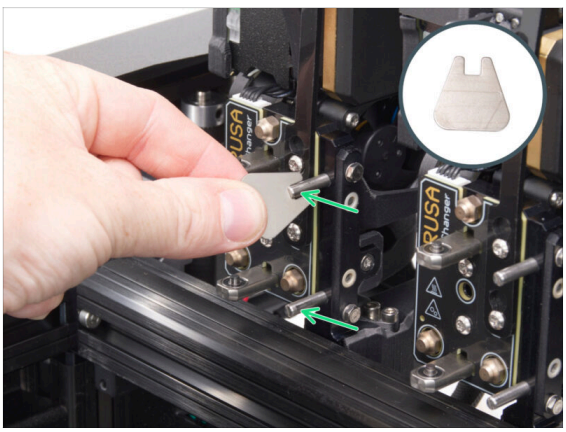
This test will require your input. The printer will guide you through properly calibrating the position of individual tool heads on the printer.

- You will need:
  - Universal wrench (1x)
  - Mini wrench (1x)

It is necessary to follow every step in the dock calibration properly! **Do not rush. Read every step twice, then proceed with the instruction.**

STEP 9 Wizard: Remove the dock pins

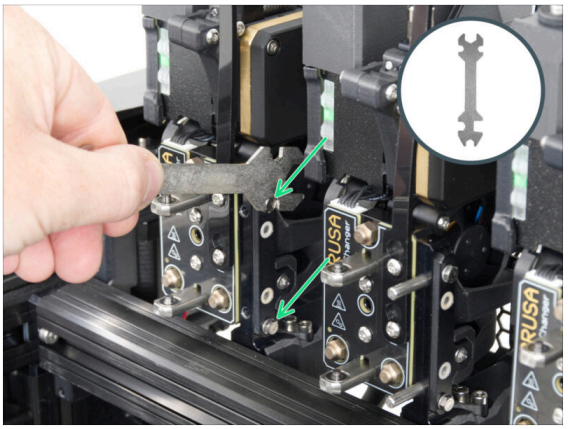




- Follow the wizard instructions on the screen.
- Using a Mini wrench, unscrew and remove both dock pins on Dock 1. Set them aside, we will use them again soon.

STEP 10 Wizard: Loosen screws

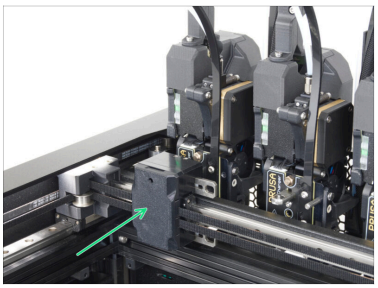


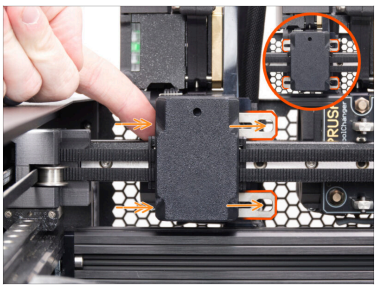


- Follow the wizard instructions on the screen.
- Using a Uni wrench, loosen two screws. **A few turns are enough; do not remove the screws.**

STEP 11 Wizard: Lock the tool





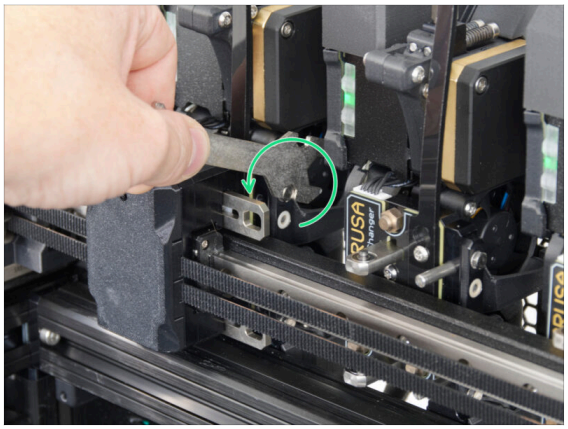


- Follow the wizard instructions on the screen.
- Slowly and carefully move the tool changing mechanism by hand to the first (leftmost) tool.
- Manually lock the metal bars as indicated in the picture.

⚠ **The tool has to be locked in the tool changer.**

STEP 12 Wizard: Tighten the upper screw



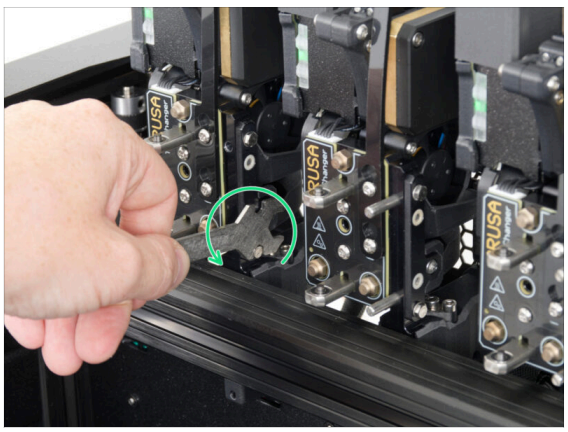


- Follow the wizard instructions on the screen.
- Using a Uni wrench, tighten the upper screw on the side of the dock.

⚠ After confirming by the *continue* button on the LCD, the XY axis will leave the dock with the tool. **Make sure that there are no obstacles in the way.**

STEP 13 Wizard: Tighten the lower screw

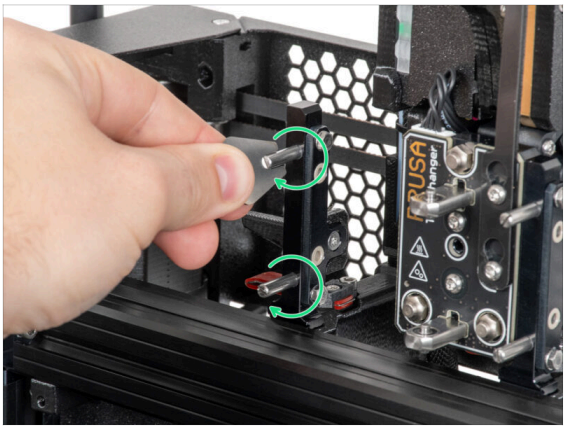




- Follow the wizard instructions on the screen.
- Using a Uni wrench, tighten the lower screw on a side of the dock.

STEP 14 Wizard: Install the dock pins





- Follow the wizard instructions on the screen.
- Insert the two metal pins and tighten them with a Mini wrench.
- After clicking on the *continue* button on the LCD, the printer will put the tool back into dock 1 and perform a few calibration moves.

STEP 15 Wizard: Dock successfully calibrated

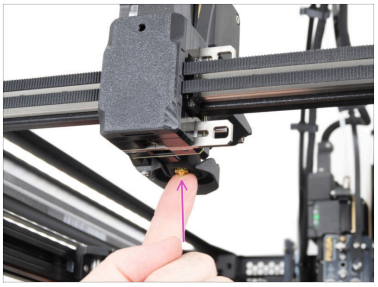


- Good job! Dock 1 is calibrated.
- Repeat the calibration process for all printheads.

STEP 16 Wizard: Loadcell test







- The next step of the wizard will prompt you to touch the nozzle to test and calibrate the Loadcell. Parts of the printer are not heated during this test; you can touch the parts of the printer. Click on ***Continue***.
- **Do not touch the nozzle yet.** Wait until the countdown finishes and the printer notifies you with a sound and display prompt.
- Tap the nozzle gently but firmly. Do not use excessive force. In case the loadcell does not detect your touch, you will be prompted to repeat the step.

Repeat the loadcell test according to the number of print heads.

After this step, proceed to the **Z Axis test** and the **Nozzle heater test** respectively. These two tests are automatic and require minimal input.

STEP 17 Wizard: Calibrate Filament Sensors



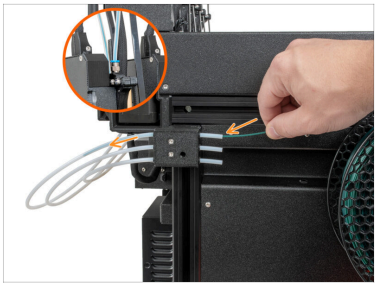


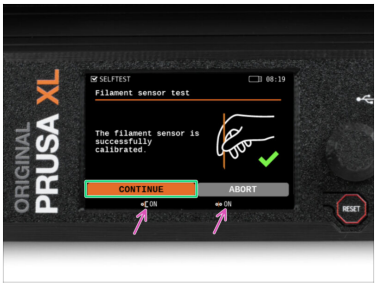


- The printer will ask if you would like to remap the third side filament sensor. Select ***Left***. Change the side only in case you do not have enough space around the printer for the third spoolholder on the left side.
- During the calibration of the filament sensors, you will be prompted to use at least 130 cm of filament. Use the Prusament shipped with your printer and mount it on the spool holder.
- When you have prepared the filament, click on ***Yes***.
- Wait for the printer to prompt you to insert the filament into the side filament sensor.

STEP 18 Wizard: Calibrate Filament Sensors







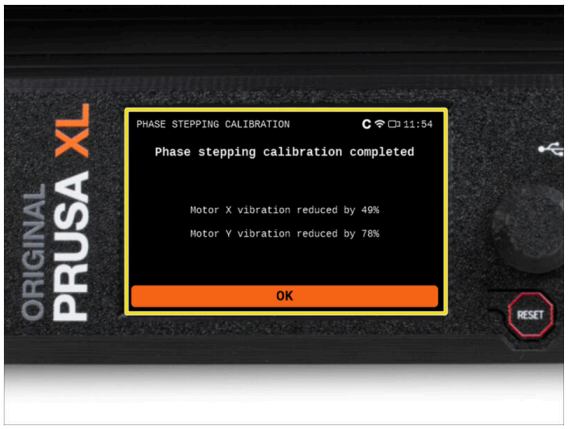
- Insert the filament into the side filament sensor through the PTFE tube. Push it in until it reaches the filament sensor in the extruder (you will feel a slight resistance).
- You can check the side filament sensor (left) and extruder filament sensor (right) status on the bottom bar on the screen.
- At the end of the test, you will be prompted to **remove the filament from the sensor.**

ⓘ According to the number of print heads, repeat the filament sensor calibration process.

- Once all five filament sensors are successfully calibrated and tested, the printer will move on to the tool offset calibration. This will require your input. Move on to the next step →

STEP 19 Wizard: Phase stepping





- **The last step is the phase stepping calibration**. This feature was introduced in firmware version 6.0.0. The calibration is automatic. Follow the instructions on the screen.

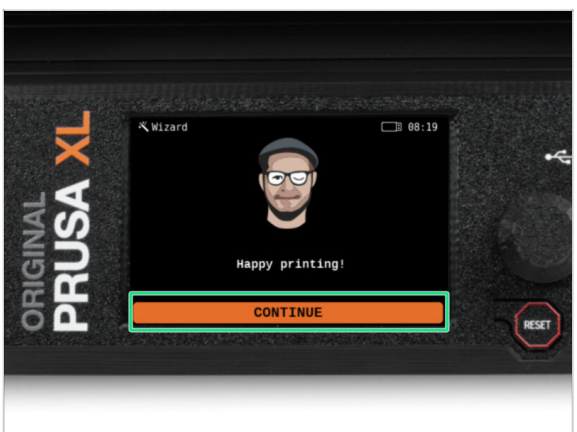
ⓘ You can find more information about the phase stepping via the following links:

- **PHASE STEPPING GUIDE**: Necessary information about the phase stepping calibration.
- **PHASE STEPPING BLOG ARTICLE**: A more in-depth look at the phase stepping feature.

ⓘ The printer will move the first print head to the middle of the heatbed and move the tool diagonally for the X and Y axes at different speeds.

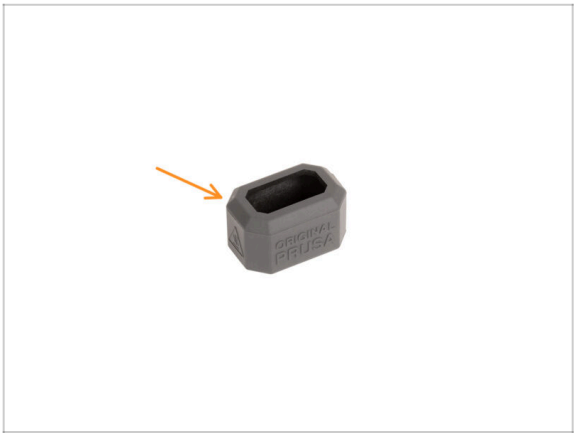
- After the printer completes the test, the screen will show by how much the motor vibrations were reduced.

STEP 20 It's done



- **Well done! The printer is ready to print.** However, follow the instructions in this manual to the end.

STEP 21 Prusa nextruder sock (Optional)



The nextruder sock helps to keep the temperature in the heater block stable. It also keeps your hotend clean from filament dirt and protects it in case the print detaches from the print surface.

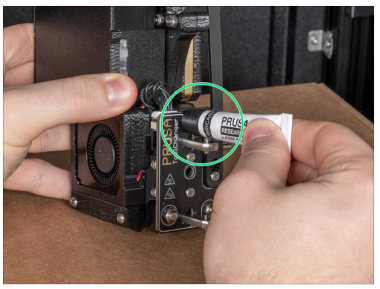
- A silicone sock is supplied with each Nextruder package.
- **If you want to install the sock, we recommend doing it after the calibration.**

How to install the sock - check the article.

STEP 22 Regular printer maintenance







To keep your printer working properly over time, it is highly recommended to do regular maintenance.

- For regular printer maintenance, follow the Regular printer maintenance (XL) article for information and instructions.

On multi-tool printers, it is necessary to focus on lubricating the coupler pins of the ToolHeads.

Lubricating the coupler pins can be made along with the rest of the maintenance, or it can also be done if you notice that your prints have banding or ringing issues.

- To lubricate the coupler pins use our dedicated online guide How to lubricate the coupler pins on Original Prusa XL.

You will need to print an applicator to lubricate the pins. Please refer to the dedicated guide for more information.

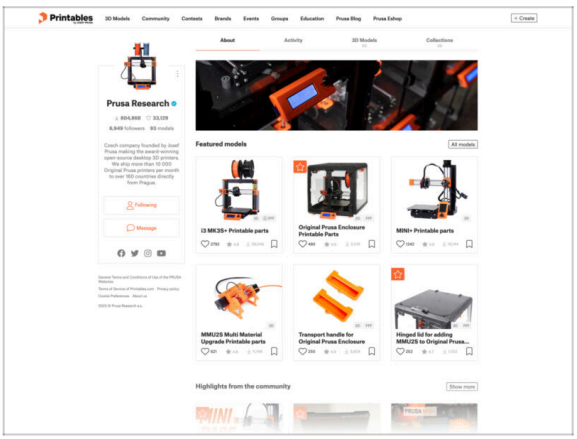
STEP 23 Quick guide for your first prints



Now, please read the **3D Printing Handbook**, which is tailor-made for your printer and **follow the instructions to set up the printer properly**. The latest version is always available at **this link**.

Read the chapters *Disclaimer* and *Safety instructions*.

STEP 24 Printable 3D models



- **Congratulations! You should be ready to print by now ;-)**
- You can start by printing some of our test objects bundled on the included USB stick - you can check them out in this collection.

STEP 25 Give us feedback

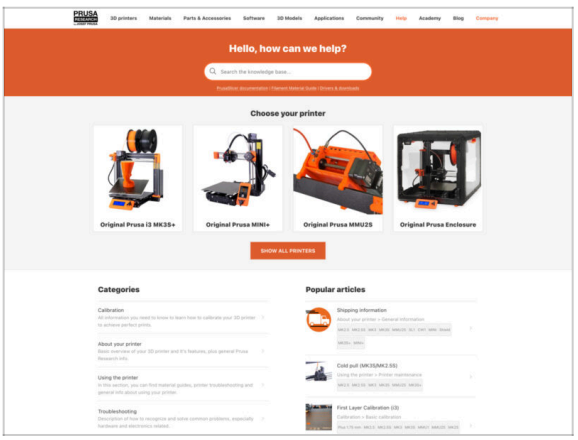


- We know you're eager to start printing, but we'd really appreciate it if you could take 3–4 minutes to **share your thoughts** on this manual: how clear it was, how easy it was to follow, and any ideas to improve it.

  ⓘ This feedback is a little different from the usual comments you might leave on individual steps.

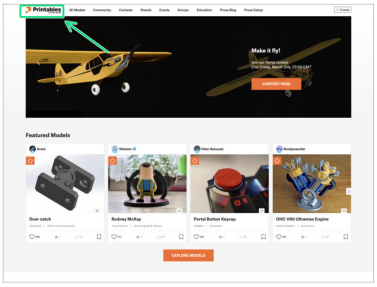
- **Share your feedback here.**
- Thank you for helping us make our manuals even better!

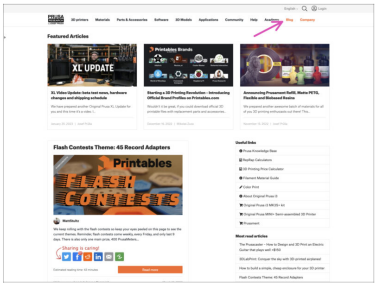
STEP 26 Prusa knowledge base

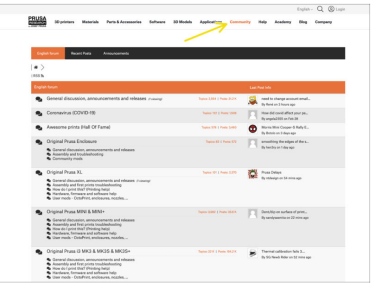


- If you encounter any problems at all, don't forget you can always check out our knowledge base at help.prusa3d.com
- We're adding new topics every day!

STEP 27 Join Printables!







- **Don't forget to join the biggest Prusa community! Download the latest models in STL or G-code tailored for your printer. Register at Printables.com**
- Looking for inspiration on new projects? Check our blog for weekly updates.
- If you need help with the build, check out our forum with a great community :-)
- ⓘ All services share one account.

STEP 28 Reward yourself!



- It looks like you have successfully assembled and connected everything. No doubt ;). **Congratulations!** You deserve a big reward for that. Eat all the remaining gummy bears... and don't forget to share with those who supported you during the assembly.
- ⓘ **Did you know that** Haribo gummy bears are one of the most important parts of the Original Prusa printers assembly instructions.

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